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THE BRITISH
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ULCUS MOLLE SERPIGINOSUM.

By J. E. R. McDONAGH, F.R.C.S.,
Surgeon to Out-Patients, London Lock Hospitals.

As no article on Ulcus molle serpiginosum has ever appeared in English, as the condition is not so very rare, and as it is always wrongly diagnosed—these three points have stimulated me to describe the lesions with an account of five cases which I have had under my care.

All five patients came up for advice complaining of chronic ulceration of the groin on one or both sides, which tended to spread either up over the abdomen, or down over the thigh; the accompanying coloured illustration will give a much clearer impression of the condition than a written description thereof.

The primary lesion is a furuncle, the edges of which become blue, bluish-white, and then break down until a distinct ulcer is formed.

The base of the ulcer is fleshy, uneven, and secretes freely. The edges are ragged, look as if they had been gnawed, and are deeply undermined; the overhanging portion is œdematous and bluish-white in colour; external to this the colour becomes purplish, and still further out, and spreading for some distance into the healthy tissue, one sees the red colour of inflammation. The inflammatory zone is most marked where the ulcer is spreading, as it invariably spreads in one part more than another; in fact one pole may heal while the other is steadily advancing. A very favourite route for one tongue

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of the ulcer to take is down the genital-crural fold. Occasionally such a process reaches as far back as the anus.

Case 1.—A man, aged 25 years, was shown by Mr. Shillitoe before the Dermatological Section of the Royal Society of Medicine, June 15th, 1911 (the coloured illustration is from this case), as a case of ? Granuloma inguinale. The patient consulted Mr. Shillitoe first on March 16th, 1911, and gave the following history: "Just before last Christmas he developed multiple sores around the corona (soft sores) and a bubo which was opened on January 10th, and which had not healed on his arrival in England. He left Singapore on February 17th, having already developed the three ulcers still present in his left groin. He was told he had syphilis, and advised to have salvarsan. During the voyage home he took 150 tablets of 3 minims each of iodine together with local applications of pure carbolic, silver nitrate, etc., without any marked effect on the ulcerations. He had been four years in the East and only really ill with malaria during the first year. Ten years ago he had albuminuria following typhoid fever. The urine had been periodically examined since, without any fresh appearance of albumen until early in February.

"When Mr. Shillitoe saw him on March 16th the urine was acid, sp. gr. 1024, and a decided amount of albumen. He had three superficial ulcerations in the left groin and an unhealed bubo. The bases of the ulcerations, which were not punched out, were glazed, devoid of granulations, and discharged a thin sanious fluid; the edges were rounded and firm. Mr. Shillitoe did not consider them to be specific, nor could he find other evidence of syphilis.

"March 23rd: Wassermann's reaction positive; no albumen, so he was put under mercury.

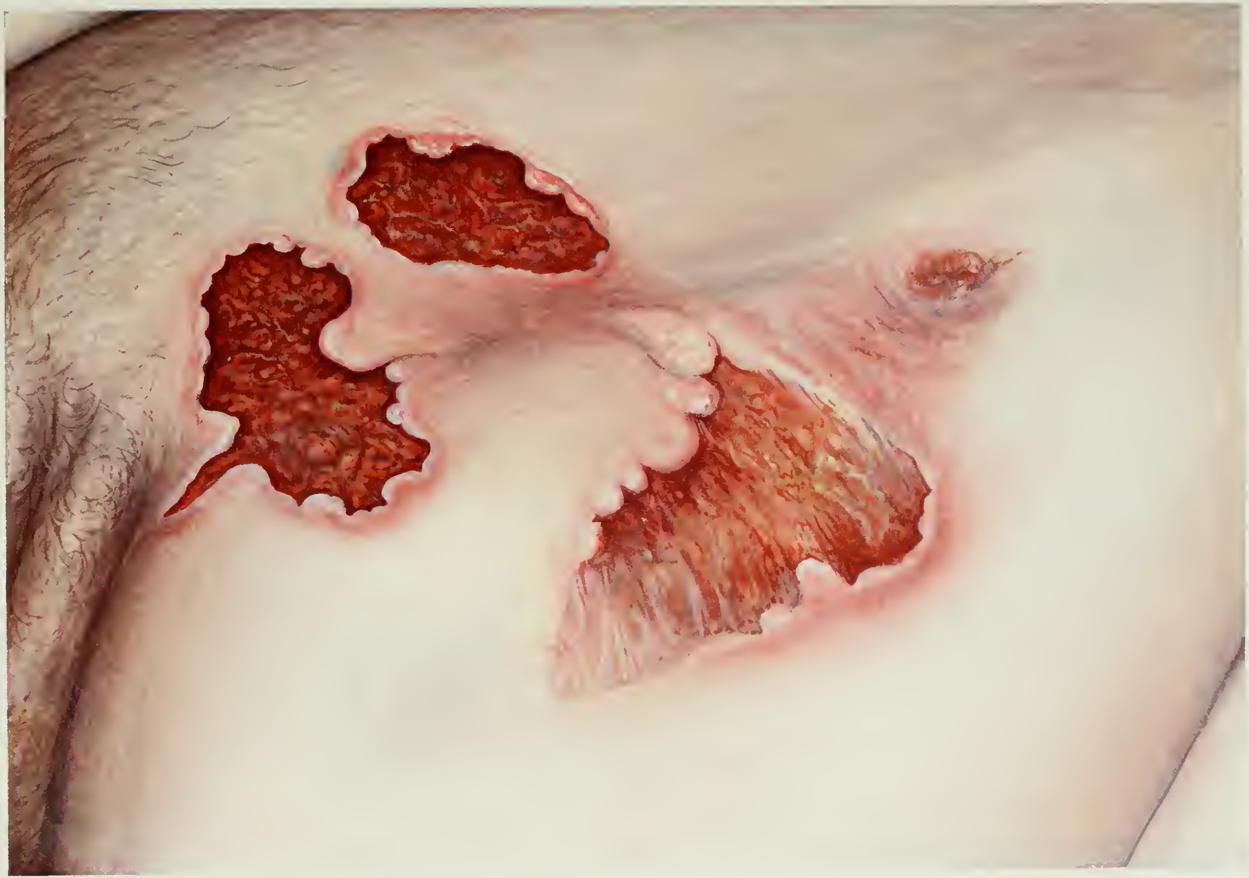
"March 31st: The sores not healing, Mr. Shillitoe gave him in addition sanatogen internally and externally.

"April 12th: The sores were gradually closing and granulations were appearing, which bled readily. He has increased one pound in weight, now 10 st. 12 lb.; there was a small trace of albumen and Herpes preputialis.

"April 21st and again on 24th: 0·59 grm. of salvarsan were given intravenously.

"April 27th: The sores were spreading at the edges."

The painting was done in June, after the excision of one ulcer had



S. A. Sewell, del.

Fig. 1.—Typical Case of Ulcus Molle Serpiginosum in Left Groin. The Wound on the Right and below resulted from an attempt to remove an ulcer by excision.

been attempted without success. Later X-rays and also radium were tried, with no better results. Every conceivable drug was tried locally, but the extension could not be stopped. The only drug which seemed to do the least good was potassium iodide given internally. When the salt was pushed up to 200 grains *per diem* and the sores washed with perhydrol and then dusted with iodoform, the ulcers, after several weeks, completely healed.

When the ulcers began to heal zinc ionisation was tried with a little success; iodine and copper ionisation were useless.

I am quite sure that the cure was due to the potassium iodide given internally and the iodoform employed locally, and that it was very little, if at all, influenced by the ionisation.

The Wassermann's reaction was positive, because the patient had had a very bad attack of malaria three weeks prior to the test being made.

Owing to the fact that the ulcers did not heal the question of tubercle was raised, but when there was no reaction to tuberculin, and both von Pirquet's and Moro's reactions were negative, that disease was excluded.

Several films and cultures were made with negative results; these were again repeated when the ulcers secreted more freely, and every time a pure culture of *proteus* resulted.

Vaccines made therefrom stopped the discharge and removed the fearful odour it gave rise to, without in any way causing the ulcers to heal. The *proteus* was *Proteus vulgaris*; it was Gram-negative, very motile, and the bacilli varied in length. It gave acid and gas in glucose and lactose and clotted peptonised milk. It rapidly liquefied gelatin. A rabbit which was injected died in forty-eight hours from acute septicæmia.

Pieces of tissue were removed and injected into a rabbit, a guinea-pig and a mouse intravenously, intraperitoneally, and subcutaneously respectively. Only the mouse died a fortnight later, and in spite of a thorough examination of all its organs nothing abnormal was discovered.

The bloods of the rabbit and guinea-pig were tested from time to time with negative results.

The patient's own blood-count was as follows: red blood-corpuscles, 4,500,000; white blood-corpuscles, 12,500; polymorphonuclear leucocytes, 51·56 per cent.; lymphocytes, 46·35 per cent.; eosinophiles, 1·99 per cent.; basophiles, 0·207 per cent.; lymphocytes—large, 26·7 per cent., small, 73·3 per cent.

The lymphocytosis was doubtless due to the foregone attack of malaria and had nothing to do with the complaint.

Just on the chance that a fungus might be the cause of the mischief I tried some agglutination tests with a spore emulsion of sporotrichosis with negative results.

Two pieces were removed and examined histologically (*vide* Fig. 2).

The picture was typical of a granuloma. There were no giant-cells, but a large number of amino-plasma cells.* In places the walls of the vessels were very thickened, so that every pathologist who saw the sections diagnosed syphilis or tubercle at once.

In the most superficial layer of the undermined portion strepto-bacilli were to be found. The bacilli were Gram-negative, usually in pairs, and never in chains of more than five or six. No intracellular organisms were to be found.

Having demonstrated Ducrey's bacillus in section, I made several attempts to culture the organism on both rabbit's and human blood-agar, but failed.

Case 2.—A man, aged 27 years, who had spent several years in the Malay States, came home to consult me for some chronic ulcers of the groin. In both groins were several ulcers indistinguishable from those seen in the coloured illustration; they were extending above on to the abdomen and below on to the thighs, and on both sides they had reached far down in the genital-crural folds. The ulceration began seven months before I saw the patient.

Five years before he had had some sores on the penis (Ulcera mollia), which healed up without any complications arising therefrom, such as bubo, etc. In November the patient fell over a log of wood, with the result that two days later a swelling appeared in the skin in the inguinal-scrotal folds on both sides. The swellings behaved like boils, so were lanced, and from that time onwards they became ulcers, which rapidly tended to increase in size. As no local application was of any use, the patient was put under an anæsthetic, and the ulcers were well scraped, with the result that they spread quicker than ever.

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* *Vide Biochemical Journal.* vol. vii. No. 5. 1913. "The Chemistry of the Leucocytozoon Syphilidis and of the Host's Protecting Cells."

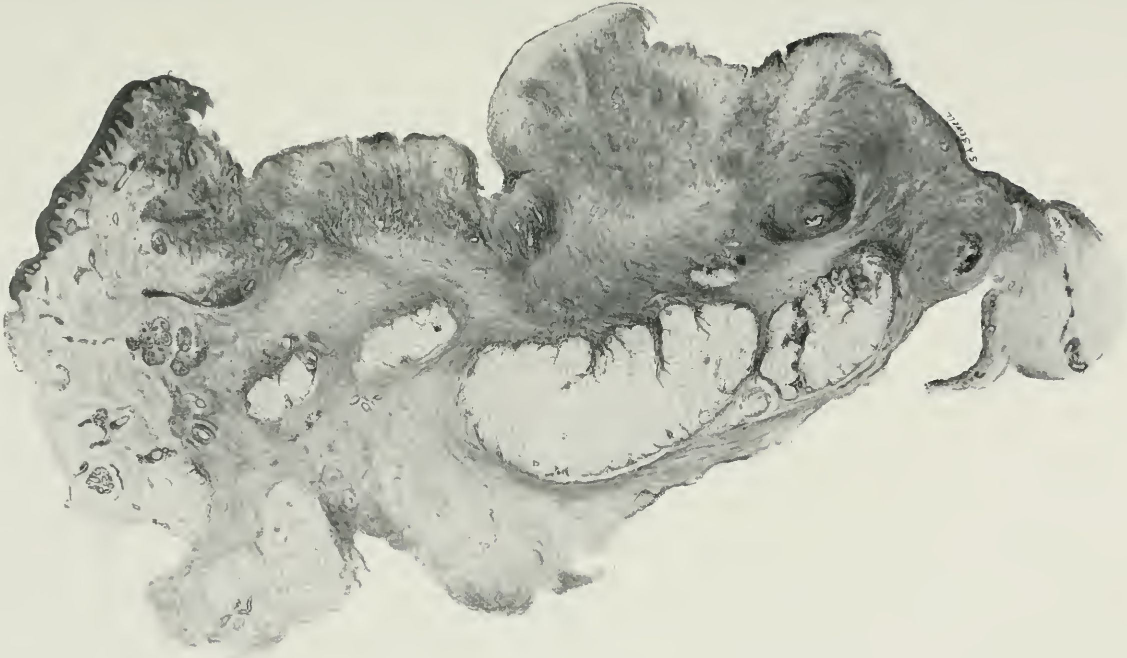


Fig. 2. Section of piece of tissue removed from the case that the coloured illustration represents. Note the undermining of the healthy tissue on the left, the marked cellular infiltration and fibrous tissue formation, and the changes around the vessels.

To Illustrate Mr. J. E. R. McDonagh's Paper on Ulcus Molle Serpiginosum.

When I first saw the patient he could not walk owing to the pain caused by the ulcers; the ulcers discharged freely, and had that peculiar indescribable odour which I have noticed in every case I have seen.

I made some films from some secretions from under the overhanging portion of skin in the region where an ulcer was spreading and succeeded in obtaining Ducrey's bacillus. Separate streptobacilli were to be seen, also many in pairs and some in chains, but contrary to what one finds in ordinary soft sores many of the leucocytes were crammed with a different form of Ducrey's bacillus, which will be described later. To prove that the ulcers were due to Ducrey's bacillus I inoculated the patient's arm, and succeeded in obtaining, after the usual incubation period, a typical soft sore, from which I was able to isolate the same bacillus.

Treatment consisted in gradually increasing doses of iodides until the patient took 200 gr. per diem; the maximum was maintained for one week and then gradually decreased, and so on until the ulcers had completely healed, which they took three and a half months to do.

Locally the ulcers were painted with camphphenol and then dusted with iodoform.

Case 3.—A man, aged 32 years, who had spent the last few years in Ceylon, consulted me for an ulceration he had in his groin and upper part of the thigh. The ulceration started in the groin as a little furuncle three years after he had had some sores on his penis (Ulcera mollia). He had never had a bubo. The furuncle became an ulcer which spread down over the thigh, so that when I saw the patient practically the anterior surface of the upper half was one huge ulcer, although the superior part had commenced to heal. The ulcer had persisted for two and a half years, and in spite of having had every kind of treatment imaginable, nothing did any good. From this ulcer I also found the intracellular form of Ducrey's bacillus. The treatment consisted in iodides internally, camphphenol and iodoform externally, and in addition the patient had five intravenous injections of tartar emetic every four days, 0·1 grm. in 100 c.c. saline, with the result that in three weeks the ulcer had completely healed.

Case 4.—A man, aged 36 years, a native of India, had an ulceration of both thighs almost down to the knees, and above the groin practically the whole of the lower third of the abdomen was involved. The ulceration had persisted for over five years, and had not responded to any treatment that had been given. Unfortunately this patient died before anything could be done.

Case 5.—A man, aged 34 years, who had spent some years in the tropical part of Australia, consulted me for a chronic ulceration of one groin. The patient had had a soft sore and a bubo resulting therefrom, which had to be incised. The soft sore healed rapidly, but the edges of the bubo became ulcerated until a typical picture of Ulcus molle serpiginosum presented itself. This ulcer rapidly healed under potassium iodide internally, camphphenol and iodoform externally, and tartar emetic intravenously.

Summing up these cases we find that we are dealing with a peculiarly chronic form of ulceration which at varying periods invariably follows a soft sore appearing independently of a bubo or after a bubo has been incised. It is further characterised by the fact that in every case the patient had lived in the tropics.

It is quite clear that any operative procedure makes matters very much worse, and that unless exactly the specific treatment is prescribed nothing is of any avail.

The best treatment appears to be to give potassium iodide internally, to apply camphphenol and iodoform externally, and healing can be hastened by giving injections of tartar emetic intravenously. Whether the antimony acts specifically or not I am not prepared to say, as the possibility arises that its action is due to freeing the iodine, which has undoubtedly a specific action. The reason I suggest this is because, after every injection of antimony, the patients always had a violent fit of coughing, which lasted for about twenty minutes—a cough resembling that that might be produced by inhaling iodine.

Concerning operative interference in soft-sore infections I must make a few remarks, as in no infection is the withholding of the same more strongly indicated.

Not infrequently soft sores arise in the corona under a tight foreskin; paraphimosis results, and, in case there is a hidden chancre, circumcision is advised. However careful the antiseptic precautions may be, the edges are bound to become infected, and in two cases I have known the patient lose his penis from the phagedænic ulceration caused by the operation.

I once removed widely under the strictest precautions a soft sore which had only been present for forty-eight hours, with the result that the whole foreskin sloughed.

A bubo, again, should never be opened until the dire necessity arises, and even then only a nick with a bistoury should be made, not the 2–3 in. incision which is usually practised.

Nearly all the cases of Ulcus molle serpiginosum have followed an operation on a bubo.

It seems that the pathology of a bubo is not understood. The organisms from a soft sore reach the lymphatic glands by way of the lymphatics; one of these glands suppurates, and so becomes adherent to the skin. A nick is all that is required to let out the pus, which is always in much smaller quantity than is *à priori* expected. The tension is at once relieved, and the other inflamed glands resolve. If a wide incision is made the interglandular tissue is bound to become infected, with the result that before the wound can heal it must granulate up from the base, and this may take months. Furthermore, the skin over a bubo is frequently just on the point of becoming gangrenous; a wide incision will cut off more of the blood-supply, so that the edges must necrose.

Histology.—Concerning the histology nothing need be said, as no granuloma is distinguishable from another, unless the causative organism happens to be found. We go to immense pains to draw up elaborate distinctions between a syphilitic, a tuberculous, and any other form of granuloma, none of which in reality exists, and, after all, why should they differ? Nature's defence against disease is always the same morphologically, and the difference exhibited against the various kinds lies in specific physico-chemical phenomena, which cannot as yet be demonstrated histologically. How often we read, for instance, that such and such a section showed the typical characteristics of Mycosis fungoides! Histologically there is no characteristic picture of this or hardly any other disease.

Take three sections of three different granulomata, one from a case of syphilis, another from a case of tuberculosis, and the third from a lesion caused by the injection of wax. Morphologically there is no difference. Give all three cases an injection of salvarsan and again examine the three histologically: a marked change is noticed, in that in the syphilitic section the plasma-cells have disappeared, but not so in the other two, although morphologically it was the same plasma-cell in all three.

Bacteriology.—In describing Ducrey's bacillus one must bear in mind the extraordinary morphological differences which the organism may present. The following five types are those given by Tomasczewski (*Handbuch der Geschlechtskrankheiten,* Bd. ii, S. 631):

(1) Short rods which are difficult to distinguish from cocci, being 0·4 μ long and 0·3–0·35 μ wide.

(2) Longer rods with rounded ends; the bacilli are usually isolated —length 1·5–1·7 μ, breadth 0·4 μ.

(3) Dumbbell forms, which are usually found in groups.

(4) Forms like diplococci, first described by Unna as the "Doppelpunkt bacillus" and by Ducrey as the "Achterform." Length 1·0–1·5 μ, breadth 0·3–0·4 μ.

(5) The "*en navette*" form of the French or the "Schiffchenformen" of the Germans, rods which have an unstained point in the centre; length 1·1–1·5 μ, breadth 0·5–0·6 μ.

The "*en navette*" type is rare in soft sores, but extremely common in Ulcus molle serpiginosum; the short rods and diplococcal forms were also found, but they were always extracellular, while the "*en navette*" form, although found extracellularly, was most often and in enormous numbers found intracellularly situated.

Hitherto no attention has been paid to this intracellular habitat of Ducrey's bacillus, but it doubtless accounts for the chronicity of the lesions and the way in which they resist anything but specific treatment. According to the views of present-day medicine one should look upon this intracellular invasion in the light of being a process of phagocytosis.

Let us for a moment turn our attention to phagocytosis, one of the devoutly worshipped idols of medicine. Phagocytosis has been largely studied by the behaviour of cells to foreign bodies outside the body. Following upon this the opsonic index saw light, and the protective capacity of the body was estimated by the number of organisms a few leucocytes outside the body could take up.

If we turn from laboratory experiments to the human body and compare notes, we find practically no analogy.

There is no evidence that *in corpore* tubercle bacilli are destroyed by phagocytosis, and in sections of infected material no bacilli are to be found in cells, except in the so-called giant cells, which, by the way, are not cells. Taking those diseases in which bacilli are found intracellularly situated, viz. gonococcal and meningococcal infections, the intracellular organisms are living at the expense of the leucocytes, not *vice versâ*. In the case of gonorrhœa no doubt this phenomenon plays a part in the chronicity of the disease.

In Ulcus molle, Ducrey's bacillus is extracellular; in the complication Ulcus molle serpiginosum, which is one of the most chronic ulcers known, the organisms have become intracellular. We have another instance of chronicity and intracellular habitat of the causative organism in the case of rhinoscleroma, which is undoubtedly the same organism as a certain form of pneumo-bacillus.

In protozoal diseases phagocytosis is unknown, the polymorphonuclear leucocyte, the phagocytic cell *par excellence*, is not in evidence.

There can be no doubt that phagocytosis is purely a secondary phenomenon, and probably it merely consists in removing those organisms which have been killed by other means. In fact the whole process could be better explained by assuming it to be a zymotic action.

I cannot help thinking that the so-called Granuloma venereum or Granuloma inguinale is an allied condition to Ulcus molle serpiginosum, and this opinion is backed up by Flu's description of intracellular diplococci which he found in the first-named condition. Flu says that in some cells there are diplococci which stain violet with Giemsa and have an unstained capsule. If strong Giemsa stain is used the capsule stains a bright red. Some of the organisms are bacilli, not diplococci; only a few are to be found extra-cellular. Flu cultured some of these and obtained plump bacilli which morphologically resembled Ducrey's bacillus, and they were, moreover, Gram-negative.

K. S. Wise has very kindly sent me over some material of Granuloma venereum from British Guiana, but owing to the destructive action on cells all fixing and hardening fluids have, when tissues are kept for a long time therein, the different delicate methods of staining cannot be employed; therefore up to the present I have not found any organisms in the sections examined.

Contrary to what might be expected, if Granuloma inguinale is a similar condition to Ulcus molle serpiginosum, is the fact that Wise tells me that in British Guiana the only cure for the former is excision and that since he has employed this method the condition is becoming practically rare.

There must be some climatic circumstance which favours the intracellular habitat of Ducrey's bacillus, because I know of no case which has occurred in temperate climates.

Not infrequently the lymphangitis of the penis which follows a soft sore may become adherent to the skin and ulcerate, producing an even-cut, freely discharging ulcer, which heals very quickly under treatment. While the soft sore and bubo are still present the patient may develop on the scrotum, the thigh, or the abdomen one or more ulcers which differ in appearance only slightly from the Ulcus molle serpiginosum. The edges are scarcely undermined, they have not the blue appearance of venous congestion, the surrounding inflammation is not so marked, and the base of the ulcer is not so deep. Such ulcers heal very rapidly under local applications of camphphenol and iodoform, and the Ducrey's bacillus is always found extracellularly situated.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on Thursday, December 18th, 1913, Dr. J. J. Pringle, President of the Section, in the Chair.

Report on Dr. Walsh's Case of Epidermolysis bullosa.

The Committee appointed to report upon Dr. Walsh's case of Epidermolysis bullosa met on Thursday, November 27th, 1913, at 5.30 p.m. There were present Dr. J. J. Pringle (President), Dr. H. D. Rolleston, Dr. James Galloway, Dr. Leonard Guthrie, and Dr. J. M. H. MacLeod (Hon. Secretary). The Committee was unanimously of the opinion:

(1) That the position of the heart was normal, and that there was no evidence either of hypertrophy or dilatation.

(2) That the heart was beating regularly at about the rate of 88 per minute in the recumbent position.

(3) That there was a murmur present, systolic in time, audible over a large portion of the cardiac area, with its maximum intensity over both third costal cartilages and varying in intensity with respiration, becoming frequently inaudible at the end of deep inspiration when the breath was held.

(4) That the murmur was not due to congenital malformation or disease of the heart, but was an example of the common type often described as a respiratory cardiac murmur.

(5) That the boy showed evidences of slight stagnatory erythema of the extremities, but that this was entirely independent of his heart's action.

(6) That there was no causal relation between the affection of the skin and the condition of the heart and peripheral circulation described.

Dr. J. J. **Pringle** showed a case of *Fordyce's disease* in a medical man, aged 38 years, who had been affected since 1898. Both lips were affected, the upper much more severely than the lower; but the buccal mucous membrane was free. On the upper lip the lesions had coalesced to form a continuous yellow plaque extending from one angle of the mouth to the other. There was very little inflammation, and the patient was not ostensibly neurotic, although he suffered intense annoyance from the condition, as so frequently happens. He had slight gastric dyspepsia, but no appreciable dilatation of stomach or colon. The case was shown chiefly to elicit opinions with regard to treatment. The exhibitor's experience with X-rays, both in full and in small oft-repeated doses, had been unsatisfactory in a considerable number of cases. He had seen nothing but harm result from scarification and cauterisation, as advocated and practised chiefly in France; nor did he think that electrolysis was applicable, as the condition was too agminate. He had heard of a case successfully treated with radium, probably applied "naked" in the form of a plaster and in small quantities, frequently repeated; this procedure he proposed to adopt.

Dr. **Knowsley Sibley** said he had treated a patient with this condition by ionisation of salicylate of sodium, and it rendered the patient more comfortable, though he could not say there was much difference in the appearance of the lesions.

Dr. **Pernet** said that in some of the cases that he had seen the subjective symptoms were not very marked, while in others they were very much like those in the present case. He recommended electrolysis.

Mr. T. P. **Beddoes** said he saw a case some time ago considerably more advanced than the present one. The man, not satisfied with the advice he got, went to a "cancer curer," who applied a strong arsenic paste. That resulted in removing not only the disease but also the whole lip.

Dr. **Whitfield** said that as this condition evidently made the life of the patient a burden, it seemed justifiable to ask a surgeon to remove the affected area, and skin-graft. He thought it likely that the skin-graft would change into dry, stratified mucous membrane. It could be tried on a small area. He would have thought that full pastille doses of X-rays would have been useful, because complete atrophy of tumours of the appendages and skin could be brought about by X-rays. He believed that these lesions had been found to be non-secreting sebaceous glands or sebaceous rudiments.

Dr. **Dudley Corbett** showed a case of *syphilitic macrocheilia*. The patient was engaged in tutorial work until his present condition prevented his getting further employment. It began in 1902 with a general enlargement of his lower lip, which extended to the upper lip, and more recently to his tongue. There is a history of syphilis twenty-eight years ago, for which he had a course of treatment for two years. There is never any pain. The extent of the condition varies—cold or mental worry making it worse. He has always been a heavy smoker. There is now a general diffuse hypertrophy of the lips and tongue, most marked in the lower lip. The tissues of the lips have an œdematous and gelatinous appearance, and there is no ulceration. The tongue is enlarged, fissured, and hard at the margins. The teeth, when he first came under observation, were in a very septic condition. They are all now being extracted. Mr. McKay, the dental surgeon, states that he has never seen a similar condition due to sepsis alone. The Wassermann reaction is strongly positive.

Dr. **Corbett** asked for advice as to treatment. He proposed to give salvarsan, to be followed by a course of mercury and iodide, and wished to know whether these measures would be likely to clear up the condition entirely, or whether sufficient new tissue would remain to necessitate the use of radium.

Dr. **Sequeira** said he had had a case one and a half years ago almost identical with this, and the improvement under neo-salvarsan was remarkable. He did not expect the whole of the present swelling would disappear, but that it would be considerably diminished in size.

Dr. **Graham Little** reminded members that he had shown a very similar case of chronic hypertrophy of both lips in a young man at a recent meeting of the Section. In that case the Wassermann reaction had been negative. The teeth, which had been in a very septic condition, had been removed since the case was shown, and the improvement resulting from this measure alone had been remarkable.

Dr. **Whitfield** said he had had a case which was treated with salvarsan by Dr. McIntosh. The lip was a very big one, and the patient was dying of syphilis. His lip was now so much reduced in size that it hardly looked abnormal. It had been said that mercury failed to cure these conditions, yet he believed it was somewhat beneficial; unfortunately mercury, while combating the syphilis, acted as an irritant to the buccal mucosa. Hence the benefit was largely counteracted. In the present case, if the patient's teeth were removed, and mercury given, he thought there would be much benefit to the lip. When even one bad tooth remained there was gingivitis, and an increase in the elephantiasis.

Dr. **Gray** said he could bear out what Dr. Sequeira had said, as he had a patient of the same kind, and got much the same result. In his case there was also some residual swelling and some scarring round the lip which might account for the incomplete disappearance of the œdema.

The **President** (Dr. J. J. **Pringle**) also agreed as to the efficacy of salvarsan. He recently had a similar case in which an enormous hypertrophy of the upper and lower lips had been reduced practically to normal size by three injections of salvarsan. He did not think that radium would be found necessary even as an adjuvant.

Dr. T. P. **Beddoes** showed a case of *X-ray dermatitis*. L. S—, male, aged 37 years. The patient began X-ray work in 1898. He went to South Africa in 1900, and four weeks after landing vesicles formed on the hands, but work was continued until March, 1902, eleven years and nine months ago. A callosity on the left index-finger became prominent in 1911 and an ulcer formed. The special interest in the case was that the patient now required active treatment after having definitely, on account of an attack of typhoid fever, given up X-ray work eleven years ago.

Dr. **Sequeira** recalled a case recently published by Darier, the patient having had a supposed mammary carcinoma. Twelve years ago she had thirty exposures to X-rays, each of fifteen minutes' duration. At the end of the course she had slight dermatitis at the site of the X-ray treatment. That cleared up, and she had no symptoms for eleven years and seven months. She was now under Dr. Darier's care with an X-ray ulcer which was quite characteristic. He suggested excision of the ulcer and grafting in the present case.

Dr. **Whitfield** said that a case had been sent to him in which the patient had a needle in the foot twelve years ago, at which date X-ray technique was not what it was now. The rays were used a good deal to find the needle, but always without effect. At that time the patient had a fairly large burn caused by the rays, which ulcerated in the centre and then healed. It remained healed until last year, and then broke down, causing agonising pain. He advised excision, and this was done by Mr. Mower White, who left the ulcer dressed for about a week before skin-grafting. The moment it was excised, although a raw surface was left, the pain disappeared, and when grafting was done it healed nicely. He strongly agreed with Dr. Sequeira's advice regarding excision.

Dr. ADAMSON said this case was important, because it showed that an epithelioma might arise from an X-ray scar the result of an acute dermatitis of mild form, and long after exposure to X-rays had ceased. It was formerly taught that X-ray cancer arose from the stimulation of the epithelium by repeated small doses of X-rays. The speaker had disputed this theory in a report upon X-ray dermatitis published in the *St. Bartholomew's Hospital Reports* in 1909 in conjunction with Dr. Lewis Jones and Mr. Rawlings. Repeated and long-continued application of X-rays were not essential for the production of malignant epithelioma. Malignant epithelioma might arise upon a scar the result of a dermatitis from a single dose of X rays. These growths were due to the irregular proliferation of the epithelium, not as the immediate result of any stimulating action of the rays, but as a consequence of the disturbance of the normal relationships or balance between the epidermis and the corium which occurred in the scar of an X-ray burn. It was analogous to the disturbance of balance present in the scar from sunburn and to a less degree in scars from any cause, which might also lead to irregular proliferation of the epithelium in the form of warty growths. He fully agreed with the advice to excise the growth at the earliest opportunity.

Dr. GRAHAM LITTLE had seen at Darier's clinic at St. Louis the case of retarded development of epithelioma after X-ray treatment to which Dr. Sequeira had referred, and Dr. Darier had on that occasion referred to another case like Dr. Whitfield's, namely, the development of epithelioma after a skiagram had been taken of a foot in which a needle had become accidentally embedded.

Dr. NORMAN MEACHEN reminded members of a case he showed at the International Congress of Medicine in August, the patient being a boy who had had enlarged glands in the neck, and was treated with X-rays five years ago. He came with a superficial ulceration, and very marked X-ray dermatitis, which agreed with the cases which Darier termed "delayed radio-dermatitis." He (Dr. Meachen) had a similar case recently in a young man, a musician, who had had X-rays applied for tinea. There was a patch of baldness remaining, and on that was a shallow, very indolent, slowly healing ulcer. The last application of the X-rays was seven years ago.

Dr. KENNETH WILLS said a point of interest might be the treatment which led to the ulceration. This present patient said he saw a wart, and treated it badly, cutting it off once or twice with a razor, and knocking it about a good deal by handling nuts and spanners in connection with his motor bicycle. This case came home to one when personally suffering from warts following the application of X-rays. He had had such warts on his hands, and got rid of them by means of carbon dioxide snow. They did not recur in the same position.

Dr. S. E. DORE, showed a case of *vegetating syphilide*. The patient, a man, aged 47 years, had suffered from soft sores on the penis twenty years previously, but had had no eruption on the skin, or other syphilitic manifestation, until six months ago, when the present eruption appeared. The lesions were first noticed on the back of the neck and were followed by others on the face and scalp. With the exception of a small patch on the left elbow these were the only parts of the body affected. The lesions consisted of numerous protuberant fungating and ulcerating crusted lesions scattered irregularly over the scalp and hairy parts of the face, with a preponderance on the eyebrows, upper lip, and the sides of the chin, where the heaped-up crusts were very prominent. On the scalp some of the ulcers had left deep scars. The Wassermann reaction was negative, but as the patient had been taking Donovan's solution the blood was examined again a month later after all drugs had been stopped. The result on the second occasion was "very slow, but complete hæmolysis." In the exhibitor's experience salvarsan gave excellent results in this type of case where mercury and iodide failed, and he proposed to adopt this method of treatment.

Dr. ADAMSON called attention to the close resemblance of the lesions in this case to those of blastomycosis, as pictured by American observers. No authentic case of blastomycosis had been observed in this country, and he agreed with the diagnosis of syphilis.

The PRESIDENT said the first case of syphilis in which he had ever ordered "606" was one approaching this in type, and the recovery after one injection was so rapid and complete that he did not see the patient till three months afterwards, when the improvement persisted. The case had previously resisted all forms of treatment, not only at his own hands, but at those of many others. He could not help thinking that iodine sometimes played a *rôle* in the production of frambœsioid lesions, such as the patient presented.

Dr. S. E. DORE showed a case of *congenital hyperkeratosis of the palms and soles.* The patient was a male child, aged 4½ years. The condition was noticed at birth, and was attributed by the mother to a fright from a chicken when she was pregnant. The palms and soles presented a thickened plate of horny epidermis, which was rough and "worm-eaten" and deeply fissured at many of the flexures, so that there was considerable difficulty and some pain on movement. On the points of the elbows and dorsal surfaces of the ankles were similar but less well-developed patches of thickened skin. In the latter position the lesions were linear, and followed the direction of the extensor tendons. The skin over the knuckles was also thickened with accentuation of the natural skin-folds. There was no history of heredity, and the present patient was one of six children, none of whom was similarly affected. The Wassermann reaction was negative.

Dr. **MacLeod** said that he considered that in the present state of our knowledge it was advisable to retain the name "congenital hyperkeratosis" for these cases, and not to class them under the heading of ichthyosis, as they belonged to the group of the nævi.

Dr. F. **Parkes Weber** said that the most remarkable feature of these cases was that they constituted the only kind of nævus involving the ends of all four extremities. The best way of looking at such congenital cases was to regard them as due to a nævus formation of symmetrical acro-keratosis type.

The **President** said he agreed that it was better to separate these cases from true ichthyosis, especially as they were only very exceptionally associated with that disease, or with hystrix. Radcliffe-Crocker's name "tyloma" was a convenient one. He could not, however, agree with Dr. MacLeod that the palms and soles of true ichthyotics were generally normal. His own experience confirmed the observation of Radcliffe-Crocker, that the palms and soles are generally smooth and dry, the major natural lines being deepened and the minor obliterated. Besnier held the same opinion.

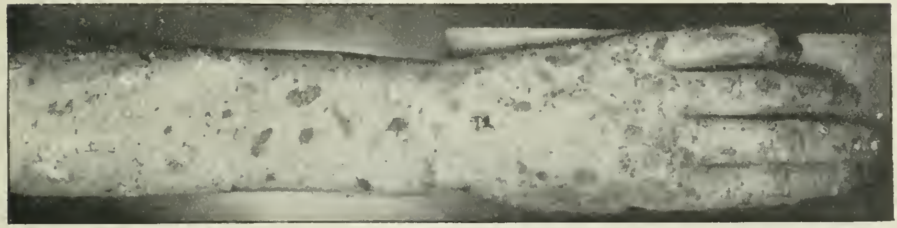
Dr. S. E. **Dore** showed a case of *congenital alopecia*. The patient was a child, aged 2 years. The scalp was bald with the exception of a tuft of long dark hair on the vertex and a fringe surrounding the head in the occipital and inferior parietal regions. The eyebrows were affected, but the eyelashes were normal. The mother stated that the hair began to grow when the child was twelve months old, and she suffered from an abscess of the breast at this time when she was suckling it. There was no family history of baldness, and the patient's sister, aged 4 years, had a good head of hair. The mother also had a healthy baby a few weeks old. The patient's blood was at first reported to have given a weak positive reaction, but at a second examination it was negative.

Dr. **Sequeira** said he had had forty cases of Alopecia areata, and three of the congenital type examined by the Wassermann test. Three cases of acquired alopecia gave a positive reaction, but in all of them there was other evidence of syphilis.

Dr. S. E. **Dore** showed a case of *bromide eruption* in a child, aged 7 months. The eruption was of four weeks' duration. The lesions varied from small papules and papulo-pustules, chiefly situated on the limbs, to large, protuberant, granulomatous masses, exuding pus, on the face, forearm, and buttocks. The mother had not taken any medicine when she was suckling the baby, but she had given it four teething powders at intervals of a week, and the rash had appeared about a week after the last powder was taken. Fresh lesions had continued to appear since this time, although no more powders had been given. The child was somewhat constipated, but in other respects was in good health. The powders were stated to have made the child sleep, but a published analysis of their contents did not indicate that they contained bromide of potassium.

Dr. W. T. FREEMAN showed a case of *Dermatitis artefacta.* The patient, a girl, aged 22 years, was admitted into the Royal Berkshire Hospital early in September of this year, and was discharged with the lesions healed at the end of October. The condition had existed previous to admission for five months. It was said to have started with red spots and blisters upon the hand and fingers, and to have slowly spread up the arm to the shoulder.

Upon admission the fingers, hand, forearm, arm, and shoulder of the left side were the sole affected parts. The whole of this area was thickly covered with a mixture of macules, vesicles and pustules, with quite a score of superficial undermined ulcers of oval shape, many of them as large as a half-crown piece. Subjective symptoms were comparatively slight.



When exhibited the affected area showed much small scattered pigmentation, and the seats of the ulcers were very distinctly marked out as red scars, three of the scars having taken on considerable keloid growth. Since her discharge from the hospital there had apparently been no fresh lesions upon the left arm, but she accounted for two small burns upon the back of her right hand by saying that they were caused by sealing-wax. For the past year or so she had been living at home with her parents, and had been previously employed at a post office. It may be added that the ulcers and scars had a peculiar linear arrangement.

Dr. GEORGE PERNET showed a case of *Dermatitis artefacta.* The patient, a woman, first came under observation on November 4th, when the duration of the condition was four months. The right arm presented various quadrilateral and streaky lesions, but fresh and different ones had been appearing at intervals since. Several had been and were necrotic, and were black and irregularly circular and angular. There had been hemianæsthesia.

Dr. SIBLEY said it was a curious fact that here were two patients, both right-handed individuals; in the one the lesions were limited to the left arm and in the other to the right arm. He suggested that in Dr. Pernet's case a primary lesion was produced accidentally on the right arm, and that from this accident the idea occurred to produce other lesions.

Dr. SEQUEIRA pointed out that the feature alluded to by Dr. Sibley had been long universally recognised.

Dr. STOWERS said that as in Dr. Freeman's case the primary lesion was due to accidental burning by sealing-wax—the patient being employed as a post-office clerk—it was not improbable that the subsequent development was the result of the same process voluntarily applied. It was well known that owing to the peculiar mental condition of such female patients the production even of severe pain did not act as a deterrent against self-inflicted injury, of which he had seen numerous instances.

Dr. J. M. H. MACLEOD showed a case of *Lichen spinulosus with Lichen planus.* The patient was a healthy-looking boy, aged 12 years. His parents were alive and there was no history of tuberculosis in the family, nor were there any tuberculous stigmata present in the patient. On his neck and face was a number of small, soft, pigmented moles varying in size from a pin's head to a split-pea. Since he was aged eight Lichen spinulosus had been present on his skin. At the time of exhibition that affection was evident in the following situations: On the back of the right shoulder there was a patch about the size of the palm of the hand of typical lesions consisting of follicular papules, some the colour of the skin, others slightly pinkish, rounded or acuminate in shape, and many of them presenting dark horny plugs or short white spines at the apices. In the corresponding situation on the left shoulder were a few discrete spiny papules. The pilosebaceous follicles on the sides of the trunk were prominent, but not definitely spiny. On the extensor aspects of the arms, especially over the elbows, the follicles were prominent, like permanent goose-flesh, or formed acuminate papules with horny plugs, so that the skin felt rough, like a nutmeg-grater. Similar lesions were present though more sparsely distributed on the extensor aspects of the leg, and the follicles on the calves were distinctly prominent. There were no subjective symptoms associated with the follicular and spiny lesions.

About six weeks ago a typical eruption of Lichen planus in the form of discrete, flat, polygonal papules, violaceous in tint, smooth, shiny, and presenting the characteristic milky-looking network on the surface, appeared on the flexor aspects of the arms, extending from the middle of the upper arm to the wrist, in the axillæ, and on the pubes, groins, and legs from the knees down to the dorsa of the feet. Here and there the individual plane papules had coalesced to form conglomerate papules about the size of a split-pea. The plane lesions were intermittently itchy.

The case was exhibited with the object of eliciting the opinions of the members with regard to the relation between the Lichen spinulosus and the Lichen planus. In adults it is no uncommon occurrence to find spiny lesions in association with plane lesions, as in the type of case described by the President as Lichen plano-pilaris, but this association is, in Dr. MacLeod's experience, rare in children. In differentiating between Lichen spinulosus and Lichen planus, the sensory symptom of itching is of importance, for it is usually absent in the former and present in the latter. In this case, so long as spiny lesions alone were present there were no subjective symptoms, but when the plane lesions appeared slight itching developed and was confined to them. It would seem, then, that in this case there might be two distinct affections and that their association might be accidental. There was nothing in the general condition of the boy to suggest either a toxic origin for the Lichen spinulosus, or a neurotic influence which might in some way be responsible for the Lichen planus.

Dr. Adamson said he thought Lichen spinulosus in an adult always meant that the patient was going to have Lichen planus. In all the cases he had seen in adults Lichen planus eventually developed. In children one found this condition without Lichen planus, the latter being rare in children; but Dr. MacLeod had shown cases of Lichen spinulosus and Lichen planus coincident in children, and he was inclined to regard Lichen spinulosus as a manifestation of Lichen planus even when it occurred without planus lesions in children.

Dr. Whitfield said he thought that the Lichen spinulosus papule had, in the absence of local treatment, no tendency to get well; therefore it might occur shortly before an attack of Lichen planus, or at any time before it, and might last indefinitely. Thus the length of interval was not of great value.

The President said he believed he was the first person to draw attention to the relationship of true Lichen spinulosus (or pilaris) to Lichen planus, and he had coined the term "Lichen-plano-pilaris," which he had sometimes seen associated with his name. He agreed with Dr. Adamson that in the adult Lichen spinulosus was a clinical expression of the same pathological condition as gave rise to Lichen planus—whatever that might be—and the two conditions were constantly seen in association. He had some doubts, however, as to the boy shown being a real example of the association. The spiny lesions were of far older standing than the undoubted planus papules present, and some of them were surrounded by a small pustulette; he was therefore inclined to regard them as an exaggerated congenital keratosis (or ichthyosis) follicularis rather than as an acquired condition, and this view was strengthened by their distribution.

Dr. W. **Knowsley Sibley** showed a case of *Lupus erythematosus*. The patient is a woman, aged 35 years, suffering from a very extensive Lupus erythematosus of the scalp and face. The disease commenced nine years ago in the middle of the frontal region of the scalp, and has gradually extended. The hair-follicles over the whole of the fronto-vertical region of the scalp have been destroyed as far as the occipital region. The whole of this area is covered by superficial smooth scar-tissue, and completely denuded of hair, but the active disease in this region has ceased in a fairly regular line all round the scalp. Both the cheeks, nose, forehead, upper lip and chin are covered with an active erythematous scaly eruption, which is also slightly present in and behind the ears. There is not any obvious affection of the fingers, though the patient suffers slightly from chilblains.

With regard to treatment, very satisfactory results are being obtained by painting the lesions with a mixture of acetone and carbon dioxide snow.

Dr. **Sequeira** said he had tried the method just described, and found it gave the patient more pain than did the application of the snow by means of the solid stick.

Dr. **Adamson** said it was known that exposure to extreme heat and cold often made Lupus erythematosus worse, and he did not quite understand how the snow acted in the case now exhibited. He wondered whether, in this case, the rest in bed had anything to do with the subsidence of the erythema: also how much was contributed by the calamine lotion. Rest in bed had a marvellous effect in some cases of the condition. The method of applying the snow lightly and momentarily seemed deserving of further trial in acute cases.

Dr. **MacLeod** said he had treated a considerable number of cases of Lupus erythematosus by freezing with CO_2 snow. The cases which benefited most were cases of the circumscribed type, and the benefit seemed to be due to superficial scarring secondary to inflammation. He had employed the method suggested by Dr. Sibley—namely, of CO_2 dissolved in ether—but no definitely beneficial results were obtained.

Dr. DORE said he agreed with Dr. Adamson that it was difficult to understand how the superficial action of a freezing mixture could have such a beneficial effect. The advantage of using a solid stick of carbon dioxide lay in the pressure which could be exerted, and a certain amount of deep destruction of tissue which ensued. He suggested that an ethyl chloride spray might prove as beneficial as liquid carbon dioxide snow.

Dr. DOUGLAS HEATH asked whether the ultimate cosmetic results of the treatment were good, whether Dr. Sibley had tried one side with the quieting-down methods, and the other side with carbon dioxide snow, and whether he found the results of the latter equal to those of slow natural recovery.

Dr. GRAY said many of these cases of Lupus erythematosus improved if one produced a mild inflammation. The Kromayer lamp, the Finsen lamp and such methods often gave good results. He had not had very satisfactory results with Dr. Sibley's method. Most of the cases progressed only to a certain point, and one flared up into an acute case.

The PRESIDENT said anything which rendered assistance in the treatment of Lupus erythematosus was worth discussing. If the lesions were well defined and of " fixed " type, several fairly active measures could be adopted with impunity; but if the borderline was ill-defined the greatest caution was necessary. He thought the value of mild X-raying was under-estimated. The early promise of carbon dioxide snow, applied in the usual manner, had certainly not been fulfilled; and he had seen many disappointing results from cataphoresis. Dr. Sibley's acetone CO_2 snow combination seemed well worthy of trial.

Dr. SIBLEY, in reply, said that the method did not cause more pain than the solid stick, but it was often applied over a much larger area. The patient had been in St. John's Hospital five weeks, and had previously been six months an in-patient in another hospital without any improvement. Several other cases on whom he had used the method were out-patients. He believed the benefit was due to the counter-irritation. In this case the edges of the eruption were very ill-defined, and it had crept up, especially over the ear region. The amount of reaction depended on the way in which the remedy was applied. He simply dipped a camel-hair brush into the mixture, and gave the area one sweep over. By going over the same area several times, one could freeze the skin solid. It quieted down quickly. Acetone made a better mixture with snow than ether, as it did not effervesce so violently, and was much less volatile. The temperature of the acetone mixture was that of carbon dioxide snow—namely, $-79°$ C. He only used it in the chronic type of Lupus erythematosus.

Dr. W. KNOWSLEY SIBLEY showed a case of *Stomatitis neurotica chronica*. The patient is a woman, aged 38 years, of a distinctly neurotic type. She has been married six years but never been pregnant. For the last two years she has suffered slightly from a general seborrhœa. Ten months ago she experienced a sudden severe aching and burning in her face, and numerous ulcers appeared on both sides of the buccal mucosa. These have persisted on and off ever since, she has never been free from ulcers, and at times they have been present on the tongue. At the present moment there are some small ulcers and scarring on the middle of the mucosa of the left cheek. Scars are also present on the corresponding area of the right side, and some scars are obvious on the dorsum of the tongue. The patient states she has never been free from ulcers in the mouth for over ten months; at times they are very painful and distressing. They are generally worse before each catamenial period. She tells us she is very apt to worry over trifles, and has always done so. The Wassermann reaction was negative. Cultures obtained from the ulcers produced growths of streptococci and staphyloccoci of the *albus* type.

In 1894, Jacobi, of New York, published three cases of this disease. Isolated cases had previously been described by Kaposi, Kopp, Flatau, and Mandlestamm under the headings of "Trophoneurosis Hysterica," "Chronic Recurrent Herpes of the Oral Cavity," and "Pemphigus of the Buccal Mucous Membrane." In 1899 Dr. Sibley published three cases, all in women: one, a widow, aged 74 years, who had suffered from the complaint for over twenty-five years, and who fifteen years previously had had all her teeth removed, without any improvement in the condition. Her life was rendered at times almost unbearable from the pain and discomfort of the ulcers, which used to appear on almost any part of the buccal mucous membrane, the cheeks, gums, tongue, and lips, and rendered speaking and mastication almost impossible for days together. Another case occurred in a spinster, aged 50 years, who had suffered from troublesome ulcers in the mouth almost as long as she could remember, and in her case at one period they were associated with attacks of conjunctivitis. These two patients are still alive, and have now both practically ceased to be troubled with the complaint.

Of the recognised skin-lesions, this condition most closely resembles that of Dermatitis herpetiformis, which is essentially a Dermatitis neurotica chronica.

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Dr. ADAMSON said he regarded the case as Lichen planus annularis on the tongue and palate. The patches upon the tongue were, he thought, quite typical of Lichen planus of that organ. It was well known that Lichen planus annularis might persist for many years, and it had a special tendency to attack mucous membranes.

Dr. F. PARKES WEBER said he had fairly recently studied a similar very chronic case in a woman, aged 27 years.* The history of such cases did not suggest Lichen planus. One would have to bring forward cases showing the associated occurrence of Lichen planus on the body in order to prove that cases like the one under consideration were a variety of that complaint localised to the mouth. In his own recent case, painting with a very weak solution of chromic acid seemed readily to remove the lesions for a time. This was at first tried on the supposition that there might be a syphilitic element present, but it afterwards became apparent that the patient was not syphilitic, and Wassermann's reaction was negative.

Dr. GALLOWAY remarked that he had had the opportunity of seeing the type of disease from which Dr. Sibley's patient suffered on several occasions. His association with colleagues interested in dental surgery at Charing Cross Hospital had brought him into contact with cases of this type of disease more than would otherwise have been the case. He regarded the chronic superficial vesication and ulceration occurring on the mucous membrane of the cheeks as being of infective origin, often associated in the first instance with inflammatory conditions of the gums. The diseased condition lasted for a long time and was liable to recurrences; in all probability the mucous membrane became injured as the result of the early infective attacks, and remained more susceptible to slight injuries in consequence of this. He felt much more inclined to associate the condition with bacterial infection of the buccal mucous membrane rather than to refer it to a neurotic origin. He agreed that it did not resemble the type of lesion produced by Lichen planus affecting the buccal mucous membrane.

The PRESIDENT said he had been familiar with such cases for many years, and had always regarded them as "recurrent herpes" of the mucous membrane of the mouth, analogous to Herpes facialis or progenitalis. He did not share the opinion expressed that the condition was Lichen planus. He had often observed distinct herpetiform grouping and configuration of the lesions. He recognised their tendency to recur, and their obstinacy, and he habitually associated them with the neurotic temperament and often with neurotic dyspepsia. He did not know their ætiology any more than that of other forms of recurrent herpes, but he could confirm Dr. Parkes Weber's observation that sometimes a weak application of chromic acid was beneficial.

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* One of the most interesting papers on the subject since Dr. Sibley's account in the *Brit. Med. Journ.* (1899, i, p. 900) was that of Löblowitz in the *Archiv f. Derm. u. Syph.*, 1910, cii, p. 191. Dr. Weber had only come across two or three cases.

Dr. Sibley, in reply, said that the cases he had recorded never presented Lichen planus on the body. With regard to the septic theory, in the case of one lady with the condition, fifteen years before he saw her she had all her teeth removed, yet the ulcerations persisted, and always recurred when she had any domestic or other worry. According to Jacobi the condition was uncommon.

Dr. A. M. H. Gray showed a case of *Parapsoriasis en plaques*. The patient is a male, aged 43 years, a baker by trade, whose complaint began in January, 1910, with irritation of the legs, especially marked at night; this irritation has persisted more or less till the present time. He was sent to University College Hospital in February, 1911, by Dr. H. C. Samuel. At that time he was suffering from pediculosis pubis, which rapidly responded to treatment, but in addition to this it was noticed that he had symmetrically placed, salmon-red lesions on the lower limbs. These lesions were situated in the region of the knees, both on the lower part of the thighs and upper part of the legs. They were few in number, mostly circular or oval in outline, with the exception of a symmetrical pair of patches on the thigh, which were linear in character and placed longitudinally; these looked as though they had been produced by rubbing with the finger. The colour was a pale salmon-red. The patches were quite distinct from the surrounding skin, though the margin was not quite sharply defined. There was no scaling at this time, and the patches were not appreciably infiltrated. Since that time more patches have developed on the lower limbs and they have become covered with fine scales. Similar patches have also appeared below the nipples and on the extensor aspect of each arm. In the latter situation they are smaller, not exceeding an inch in diameter, and are extremely like patches of seborrhœic dermatitis. The patient is in other ways quite healthy. The Wassermann reaction is negative, and the blood-count shows no abnormalities.

The patches and the irritation have both been very resistant to treatment. The irritation has, however, almost completely subsided under repeated exposures to the Kromayer lamp, and although he has not recently had any treatment there has not been much recurrence. On the other hand, although the patches almost disappeared after the Kromayer treatment, they have come back again since it has been stopped, but they are much paler, less well defined, and more scaly. A portion of one patch on the right thigh was excised and examined microscopically.

Microscopical report.—The horny layer is irregular and separates easily from the deeper layers of the epidermis, and there is a tendency for the different layers to separate from each other; here and there are groups of nucleated cells. Both granular and prickle layers are increased in size and there is some œdema of the prickle-cell layer; the basal layer is œdematous, and a few lymphocytes can be found between the cells. The papillæ are in some places completely flattened out, but present in others. The most marked changes occur in the subpapillary vessels, especially in the horizontal vessels. The endothelium is hypertrophied, in some cases practically occluding the vessels; there is a marked overgrowth of connective-tissue cells around these vessels and an exudate of small round-cells; here and there plasma-cells are seen. These vascular changes also accur in the papillary and perifollicular vessels. There is some œdema of the superficial layer of the dermis, but no changes can be observed in the deeper layers.

From the clinical point of view the case is of interest on account of the itching present. It has been pointed out that these cases of chronic erythrodermia sometimes occur in people employed in occupations involving exposure to great heat, and that is the case with this patient. It is also noticed in this case that a return to work nearly always brings on a return of the irritation, and it therefore seems probable that this is responsible for this symptom.

With the exception of the itching this case appears to be practically identical to the case shown at the last meeting of the section by Dr. Bunch as "Xantho-erythrodermia perstans."

The PRESIDENT agreed with Dr. Gray's diagnosis and expressed his appreciation of the value of his microscopical observations. He said he thought Xantho-erythrodermia was a variant of the condition described as parapsoriasis *en plaques*. He had tried—but in vain—to bring up a patient who had the disease in an exaggerated degree. He was a well-known author, of intensely neurotic habit, who habitually poisoned himself with tobacco. In his case the irritation was extreme, but he did not think irritation was an essential or generally prominent feature of the disease.

Dr. DOUGLAS HEATH pointed out that the disease, when it attacked the chest, showed a downward trend in a symmetrical elliptical fashion, and asked whether

Dr. Gray had noticed that. Psoriasis and Pityriasis rosacea never seemed to have that peculiar distribution, or at any rate never showed it to such a marked extent.

Dr. **Gray** replied that he had not noticed the feature of the distribution pointed out by Dr. Heath, but the patches were often linear, as if the skin had been stroked with the finger.

Dr. J. H. **Sequeira** showed a case of *unusual lichenoid eruption* in a boy, aged 7 years. The patient, G. M—, was an anæmic, wasted boy, with a thin, pinched face, and rather prominent abdomen. The child had evidently been neglected, and it was impossible to get a reliable history as to the onset of the eruption, but it was known that it had been present as far back as March, 1913. The eruption consisted of numerous red and reddish-brown papules varying in size from a pin's head to a millet-seed. Most of the lesions were round, and many of them were dome-shaped, while the minority were flat. The surface of the papules was smooth and glistening, and in some instances there was a central depression, but this was not a characteristic feature. There were no Wickham's striæ. The eruption was confined to the trunk and upper extremities; the papules, of which there were hundreds, were studded all over the surface, but in no instance was there confluence or the formation of patches and plaques. The papules felt firm to the touch. There was no itching nor any subjective symptom. The mucous membranes were free: At first the eruption suggested Lichen planus, but the absence of itching and of the characteristic lilac tinge and of any tendency to coalescence was held to negative this opinion. The exhibitor suggested that the condition was a papular tuberculide, differing in many respects from Lichen scrofulosis in its arrangement and grouping, but probably allied to that condition. The patient is still in hospital, and the results of further investigation will be reported later.

Dr. **Bolam** thought that the case was tubercular. He had seen a similar case in an older patient, some of the lesions of which were upon the face, and which microscopically showed definite giant-cells such as had been found in the present case.

Dr. **MacLeod** said he thought that the lesions were "tuberculides," and recalled a case where he had seen somewhat similar lesions on the face.

Dr. **Adamson** considered that it was a tuberculide, though it was a very good imitation of Lichen planus. On close inspection the papules were dome-shaped and not flat and burnished as in Lichen planus.

Dr. Whitfield regarded it as abnormal Lichen planus. He agreed as to the presence of dome-shaped papules, but they could be seen also in Lichen planus. There were an enormous number of triangular papules, apparently just cropping up, and that was his only reason for thinking it was Lichen planus. The lesions of Lichen planus could be divided into the visible and the invisible; there was a finer rash seen only with a side light and with the lens in one's eye. What made him doubtful about his diagnosis was the absence of Wickham's striæ.

The President said that on mere inspection he would have diagnosed the case as Lichen planus. The angularity of some of the papules with central dells, their "patterning," and distribution on the trunk and limbs to the exclusion of the face, all spoke in favour of that diagnosis. The complete absence of itching was, however, against it, and the microscopical showings must be accepted as final. He asked Dr. Sequeira to bring the case again before the Section or to report on it.

Dr. J. H. Sequeira showed a case of *multiple neuromata.* The patient, C. H—, a married woman, aged 53 years, had had a number of small tumours on the extremities for many years. The history was very vague, but it appeared certain that they were noticed in childhood. There had been some increase in their size during the past few years. The patient was a fair woman, with numerous large brown freckles on the face, neck, backs of the hands and forearms. She had always been very susceptible to sunlight, but the freckles never disappeared, though they were more marked in the summer months. Her general health was good, but her mental development was distinctly subnormal. Scattered over the upper and lower extremities there were numerous hemispherical and ovoid, rather hard tumours about the size of a pea and of the same colour as the rest of the skin. They were freely movable over the underlying tissues. The surface of some of the excrescences on the forearms was rather scaly, and here and there excoriated from scratching. There were a few similar lesions on the shoulders, but the face, neck, and the rest of the trunk were free.

No diagnosis was made until one of the tumours had been examined microscopically by Dr. Turnbull, who reported that the growths were true neuromata. The interesting features of the case were the limitation of the lesions almost entirely to the limbs and the pruritus. It obviously might be included under the designation of von Recklinghausen's disease.

Dr. E. G. Graham Little showed a *case for diagnosis*, the patient being a young man, aged 20 years, upon whose left knee, just above the patella, a tumour had begun to grow from two to three months ago. It was quite painless, of the size of a half-crown, raised about one inch from the surrounding skin, bluish in colour, with a lumpy surface and a hard base. It had grown rapidly, and within the last three weeks another more deeply situated nodule, the size of an almond, had appeared about one inch below and outside of the earlier lesion. The skin over this later swelling was of normal colour, and freely movable over the nodule. There were no lesions elsewhere, and the man was otherwise well. The general aspect of the tumour was strikingly like the tumour on the shoulder of a clergyman shown by the exhibitor at the October meeting of this Section. Histological examination of that case had proved it to be a fibro-sarcoma, with preponderating fibromatous tissue, but the tumour had taken nearly eight years to grow to a size almost the same as in this later case. A report of the nature of the growth in the present instance would be furnished subsequently.

MANCHESTER DERMATOLOGICAL SOCIETY.

MEETING held on November 14th, Dr. LANCASHIRE in the chair.

The following cases were shown :

Dr. LANCASHIRE showed (1) a *case for diagnosis*. The patient, an adult male, aged 26 years, had been subject since childhood to outbreaks of an eruption similar to the one he is now suffering from. When shown he presented two arc-shaped lesions suggestive in their appearance of tinea. The arcs were rather more than half a circle in extent and situated in the neighbourhood of the left axilla. The lesions were superficial, inflamed, without induration or subjective symptoms, and were about two inches across. The areas of skin enclosed in these arcs were pigmented, although the lesions had always been linear in character. Examination of the scales for fungus was negative.

Several members suggested that a Wassermann should be performed.

(2) A case of *Lupus erythematosus*. This patient had been shown before with a broad band of chronic Lupus erythematosus across the forehead ; this had been subsequently treated with solid CO_2. It was

now shown to demonstrate (1) the good cosmetic result which can sometimes be obtained by this line of treatment; (2) an erythematous border which had recently appeared round the edge of the old scar, apparently in the healthy skin.

(3) Case shown as one of *Acne scrofulosorum.* The patient, a girl, aged 6 years, presented numerous lesions on the extensor aspects of the forearms, legs, and a few on the face; the trunk was quite free. The individual lesions were acne-like in character, some were pustular, and all showed follicular plugging. There were no signs of necrosis.

(4) *Primary syphilitic sore* on the lip of a woman, aged 23 years. The case was of interest in that although ten weeks had elapsed since it had appeared no secondary manifestations of the disease had been observed. She had only been taking mercury for two weeks. The Wassermann reaction was strongly positive.

(5) *Exfoliative dermatitis* in a male, aged 35 years. The patient was admitted as an in-patient on October 21st, suffering from general exfoliative dermatitis, with extreme emaciation and weakness. The present condition had evidently supervened on Psoriasis vulgaris. The knee-joints, wrists and fingers were acutely flexed. With appropriate dieting and salicin internally, both the skin and general condition of the patient had greatly improved.

Drs. Brooke and Savatard showed (1) *Acne varioliformis.* J. W—, male, aged 35 years. Four months ago patient first noticed an eruption on the forehead, which spread gradually backwards on to the scalp and behind the ears. Latterly lesions have also appeared on the nose. The individual lesions were typical of this condition, and in this case were associated with seborrhœa of the scalp. A pure cultivation of *Staphylococcus albus* has been obtained from one of the primary lesions.

(2) E. B—, female, aged 64 years, was first seen in the out-patient department on September 18th; at that time the hair presented the appearance of having been cut short about one and a half inches from the scalp; the hairs had not fallen out and were not broken off, but had a lustreless and atrophic appearance, gradually tapering to the point. The follicles were prominent over the whole scalp. The patient had no irritation, but complained of occasional

swelling of the scalp, with a burning sensation; this had disappeared under treatment, but the hair had not improved. A culture of mixed staphylococci had been obtained and a vaccine has been prepared.

(3) *Acute Lupus erythematosus* in a female patient, aged 26 years. When first seen on July 28th the eruption involved almost the whole surface of the face. It first appeared, in April, on the bridge of the nose. Four years previously she had been treated for extensive Alopecia areata, and had made a rapid recovery. The inflamed area had gradually disappeared, leaving the skin practically normal, with hardly perceptible atrophy. The case was shown to illustrate how some of these acute cases will clear up under no other treatment than a simple soothing lotion.

(4) *Paget's disease of the breast* (two cases).—(1) S. W—, female, aged 65 years, gave a history of ten years' duration, the affection commencing on the right nipple. For the first eight years the disease had spread very gradually, latterly more rapidly. She was first seen in August, 1913. The area involved was 11 in. across, extending from the left of the mid-sternal line to the anterior border of the right axilla, and has a vertical diameter of 6 in. Under X-rays the lesions healed within a month, but broke down almost immediately. On November 3rd the ulcerated surface was scraped and X-rays applied. Healing is rapidly taking place.

(2) M. C—, female, aged 60 years, presented a similar condition to the above when first seen four years ago by Mr. Savatard. The condition started twenty years ago, the breast-tissue apparently not being affected. The skin was now rapidly healing under treatment with 1 per cent. ung. sozojodal mercurii and X-rays.

Dr. R. B. **Wild** showed a case of *ulceration of the legs* in a female patient, aged 24 years. This case had been shown previously on January 31st, 1913. At that time Dr. Wild was of the opinion that the probable diagnosis was one of necrotic purpura, but thought it impossible to exclude the possibility of the lesions being tuberculous. When admitted to hospital for a relapse, the lesions were similar in character to those shown previously, *i.e.* irregular, worm-eaten-looking ulcerations, hæmorrhagic in character, without induration, and gradually developing from a deep-seated nodule. After admission the patient developed an abscess which pointed just above the right clavicle, which was incised and drained and is now soundly healed. At the present date the ulcers are all soundly healed, both legs showing extensive scarring. At one place on the external dorsal aspect of the right foot was a non-fluctuating, painless, deeply situated swelling, slightly red in colour. Dr. Wild was now inclined to view the case as an atypical Bazin's disease.

Dr. DYSON showed *a case for diagnosis.* The patient, a male, aged 38 years, was admitted as an in-patient on October 1st, 1913. In 1910 he had been treated as an out-patient for a pustular dermatitis of the foot. He attended for some months and during the latter portion was treated with iodide of potassium and was discharged cured.

In March, 1913, he was again in attendance at the Skin-Hospital with a pustular eruption on the instep of the left foot. The margins of this eruption were well-defined, crescentic in outline, thickened and pustular.

The condition gradually spread, the enclosed area of skin assuming a papillomatous character with foul-smelling sero-purulent discharge. A lesion similar in character next developed on the corresponding surface of the opposite foot.

The Wassermann reaction was negative. He was admitted as an in-patient, and in addition to the lesions already described a similar condition to that on the feet had developed round the scrotum and between the buttocks; in this situation the epithelium had been shed, presenting a bright-red oozing surface with a regular pustular margin. A few days after admission the patient had an acute outbreak on the legs, trunk, face, arms and scalp. On the scalp these lesions had the appearances of kerion; those on the body were circular in character with a central scab and were already showing a tendency to become papillomatous. The lesions had been examined for fungus, but up to the present date none had been demonstrated; both staphylococci and streptococci had been cultivated from the spreading edges.

CURRENT LITERATURE.

ON SULPHÆMOGLOBINÆMIA. R. L. MACKENZIE WALLIS. (*Quart. Journ. Med.*, October, 1913, vol. vii. p. 73.)

THIS is an important paper, for Mr. Mackenzie Wallis has been able to add much to our knowledge of this somewhat rare disease; in fact, he may be said to have worked out its pathology and ætiology very scientifically and almost completely. A Dutch observer, Van den Bergh, had the distinction of being the first to recognise sulphæmoglobinæmia as a distinct disease, although it is probable that other cases described as methæmoglobinæmia by previous writers were really cases of sulphæmoglobinæmia. Sulphæmoglobin is produced by the action of sulphuretted hydrogen upon hæmoglobin, and various observers, notably West and Wood Clarke, have attempted to demonstrate this substance in the blood, but always without success. Mr. Wallis has had the opportunity of studying, in some detail, three cases of the disease, and the results of his investigations are embodied in this paper. The first new point established by Mr. Wallis was that the blood of a patient suffering from sulphæmoglobinæmia contained a strong reducing substance. A few drops of the patient's blood added to normal blood speedily reduced oxyhæmoglobin to sulphæmoglobin. This was easily demonstrated spectroscopically. Mr. Wallis then sought for a reducing substance in the various secretions and excretions, and was rewarded by finding nitrites in large quantity in the saliva and also in the urine. It became clearly of great importance for the further understanding of the disease to ascertain the origin of the nitrites, and it struck Mr. Wallis that they might be products of bacterial activity. He therefore inoculated the saliva of a patient into various culture media. From anaërobic gelatine cultures, and from these only, he obtained a marked nitrite reaction. It was found, however, that the bacillus which gave the nitrite reaction would not grow at the usual temperature of the incubator (37°), but cultures in gelatine and broth kept at room-temperature for some weeks gave a strong nitrite reaction, and from them were plated out cultures of a small, short, oval bacillus, Gram-negative and non-motile. Its chief features, other than the nitrite-forming capacity, were slow growth and prolonged vitality.

Mr. Wallis then made experiments to ascertain the source whence the nitrites were derived. For this purpose he grew the bacillus upon the mixture known to bacteriologists as "Fischer's necessary salts," plus certain organic compounds. He found that the most abundant growth occurred, and also that the nitrite reaction was strongest, when tubes were used containing asparagine, glutaminic acid and tyrosine. It was also proved that the bacillus was unable to fix the nitrogen from the atmosphere, producing the nitrites thence. It appears that the presence of an amino-acid is necessary for the formation of the nitrites. At the same time as these bodies are produced a strong reducing substance is also produced, and Mr. Wallis regards this as in all probability an hydroxylamine derivative, and he thinks that this is the strong reducing agent which he found in the blood of the patients, and which is possibly the immediate cause of the sulphæmoglobinæmia. In no case did the chemical activity of the bacillus give rise to sulphuretted hydrogen.

H. D.

ADDITIONAL STUDIES ON THE PRESENCE OF SPIROCHÆTA PALLIDA IN GENERAL PARALYSIS AND TABES DORSALIS.

H. Noguchi. (*Journ. of Cut. Dis.*, August, 1913, p. 543.)

The writer describes in detail the technique by which he succeeded in demonstrating the *Spirochæta pallida* in the brain in general paralysis and in the spinal cord in tabes dorsalis. For the description of this elaborate technique the reader is referred to the original article. The percentage of positive findings is about 25 per cent. in general paralysis, but the organism was found only once in twelve cases of tabes. The number of failures is attributed to the incompleteness of the examination, as in the majority of cases only one region of the cortex was studied, and of this only a few sections, and the writer considers that a complete examination of each case would reveal the *Spirochæta pallida* in all of them.

Since the finding of the organism in the seat of the pathological process it may be assumed that the lesions are the result of the immediate presence of the spirochæte.

J. M. H. M.

NOTES ON A CASE OF DERMAL LEISHMANIASIS IN BRITISH GUIANA.

E. P. Minett and F. E. Field. (*Journ. Trop. Med. and Hyg.*, November 15th, 1913, p. 349.)

The patient was a healthy negro, a native of Barbados, engaged in bush work of various kinds, principally wood-cutting. The disease was first noticed as an irritating pimple on the forearm which bled freely on being scratched; other lesions developed subsequently on the left arm and left foot, spreading up the legs as far as the groin, and finally lesions became widely distributed over the skin, even occurring on the face. The lesions consisted of smooth nodules which tended to coalesce to form plaques; these, from scratching, became denuded and assumed a granulomatous appearance, and finally became covered with dried crusts or scabs. When the nodules had broken the irritation ceased. The lesions in some respects suggested yaws. In the blood expressed from the nodules large numbers of typical Leishman-Donovan bodies were found. A blood-count showed 6 per cent. of eosinophiles. The patient stated that he was severely bitten by ticks while in the Bush and attributed the affection to this agency; he also stated that several other natives were similarly affected but recovered. The affection had proved singularly intractable, and had resisted mercury, iodide of potassium and salvarsan internally, and various local antiseptic applications. The case appeared to the writers to be undoubtedly one of dermal Leishmaniasis, commonly called Boch yaws in Surinam, and Bush yaws or forest yaws locally.

J. M. H. M.

INFLAMMATORY TUBERCULOSIS AND PSORIASIS.

G. Petges and Desqueyroux. (*Ann. de Derm. et de Syph.*, 1913, No. 3, p. 129.)

The authors describe a case of psoriasis occurring in a patient the subject of chronic arthropathy with a tendency to ankylosis, of insidious onset and little pain, who was wasted and reacted vigorously to tuberculin. The onset of the psoriasis was subsequent to the commencement of the joint trouble. They think that the case may bear out the conclusions of Poncet, who holds that psoriasis is sometimes a manifestation of tuberculosis.

A. M. H. G.

SYPHILIS AND LYMPHOMATOSES. A. Nanta. (*Ann. de Derm. et de Syph.*, 1913, No. 3, p. 149.)

Nanta describes two cases of lymphocytic leukæmia. In the first, the patient came under observation with primary syphilis and later developed angina with enlargement of glands in the neck; the glands never completely subsided, but gradually hypertrophied, and some twelve years later the blood was found to have the characteristic picture of lymphocytic leukæmia. The second case came under observation for a syphilitic hemiplegia, and was found to have lymphocytic leukæmia also. The author concludes that syphilis is able in certain cases to produce a non-inflammatory lymphomatous hyperplasia, accompanied by a lymphocythæmia; at the same time he does not claim that all leukæmias are of syphilitic origin, and quotes fourteen cases in which only three gave positive Wassermann reactions. He also mentions a third case which he thinks demonstrates the fact that this simple hyperplasia may develop into lymphosarcoma.

A. M. H. G.

BOOKS RECEIVED.

Die Geschwülste der Hautdrüsen. By Prof. Dr. G. Ricker and Dr. Johannes Schwalb. Berlin: S. Karger. Pp. 240. 13 Illustrations in text and 5 Plates. Price 10 *marks*.

Die Wassermansche Reaktion. Dr. Harald Boas. With introduction by G.M.R. Professor A. Wassermann. Second Edition. Berlin: S. Karger. Pp. 242. Price 7·60 *marks*.

The Chemistry of the Leucocytozoon Syphilidis and of the Host's Protecting Cells. By J. E. R. McDonagh and R. L. Mackenzie Wallis. Reprinted from the *Biochemical Journal*. Pp. 32.

The Biology of the Blood Cells. By O. C. Grüner. Bristol: John Wright & Son. Pp. 381. 7 Coloured Plates and 78 Figures in text. Price 21*s*. net.

The Philippine Journal of Science. Section B: Tropical Medicine. Vol. viii. No. 5. Manila. October, 1913.

Boletini da Sociedade Brasiliera de Dermatologia. Anno II, No. 1, 193. *Resumé* in French.

Ærtzliche Fortbildungskurse an der K. K. Universität Wien. A Bulletin of the Post-Graduate Work in the University of Vienna for 1913–14. Wien: Urban and Schwartzenberg. Price 1*s*.

THE BRITISH
JOURNAL OF DERMATOLOGY.
FEBRUARY, 1914.

EPIDERMOLYSIS BULLOSA HEREDITARIA.

By E. B. MORLEY, M.B., B.S.Lond., M.R.C.S., L.R.C.P.,
Late House-Surgeon and Medical Clinical Assistant, London Hospital.

Since the first reported instances by Tilbury Fox in 1879 about fifty cases or groups of cases of Epidermolysis bullosa hereditaria have been described. Of these, twenty or more have been single examples without other members of the family affected, and I can find only six (Bonajuti, 31; Columbini, 25; Blumer, 16; Valentin, 11; Bettmann, 11; Mac Cormac, 11)[1] records where more than ten members of a family have shown the disease. Therefore, it may be of interest to describe a large family which has recently come to my notice, together with detailed notes of three of the members who have been under my care in the practice of Dr. Holtzmann.

Following the description of the cases and family is a note on an aspect of the pathology of the disease.

Case 1.—N. M—, aged 32 years, envelope maker, seen first June 31st, 1913. Since birth has been troubled with blisters coming up after the slightest bumps and injuries. The parts chiefly affected are elbows, hands, knees, shins, and feet. The palms, soles, face and mouth are never affected. If a blister has appeared it always heals with greater difficulty in spring or autumn. Blisters often rise up a second time after subsiding. Some contain clear straw-coloured fluid, others contain blood. Fluid from a blister, examined, showed no eosinophilia. (The blister was some hours old and contained many leucocytes and epidermal cells; it was probably infected.)

At the time when I first saw N. M—, there was on the left elbow a large blister, 2½ in. by ½ in., containing clear straw-coloured fluid and surrounded by an injected red area. On the right elbow was a collapsed blister with a red base and surrounding area. On both elbows were thin scars of old blisters. The hands presented a series of phenomena to which one would draw special attention. They were cyanosed and cold even in warm weather, the skin was thin, shiny and atrophic. Many thin, unhealthy-looking, papery scars, some of them pigmented, were on the backs of the hands and fingers. The nails, with the exception of those on the right little finger and left middle and index fingers, which appeared normal, were ribbed, horny and irregular, with thick, jagged masses, not reaching to the ends of the fingers. Examination of sensation showed light touch, discrimination between heat and cold, and pain and pressure all present; there was no muscular wasting. The toe-nails were similarly affected, knees and legs showed old scars, the more recent thin and bluish in colour, the older ones wrinkled and pigmented. In some of the lesions small, firm, white, semolina-grain-like epidermal cysts were embedded.

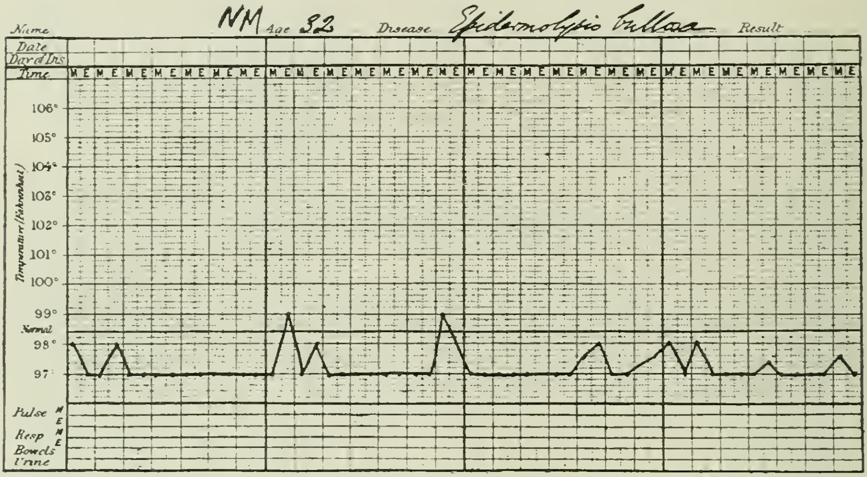

FIG. 1.

About Christmas, 1912, the patient, who had been in good health, apart from the skin-lesions, all his life, complained of "rheumatism" in the right leg. Ten weeks previous to the time when I first saw him (*i. e.* April, 1913), the leg began to swell from foot to thigh. He was in bed five weeks treated with iodides and mercury. When he got up again the swelling came back. Examination of heart and abdomen showed no cause of the œdema, nor was any local cause found. The patient said he had an abscess in the right groin when a child, but there was no sign of this remaining. He had never been abroad. The left leg did not swell at all. He returned to work in July, but came back later with more swelling and a septic back-pressure ulcer on the right shin. He was treated in hospital. The temperature chart is notable.

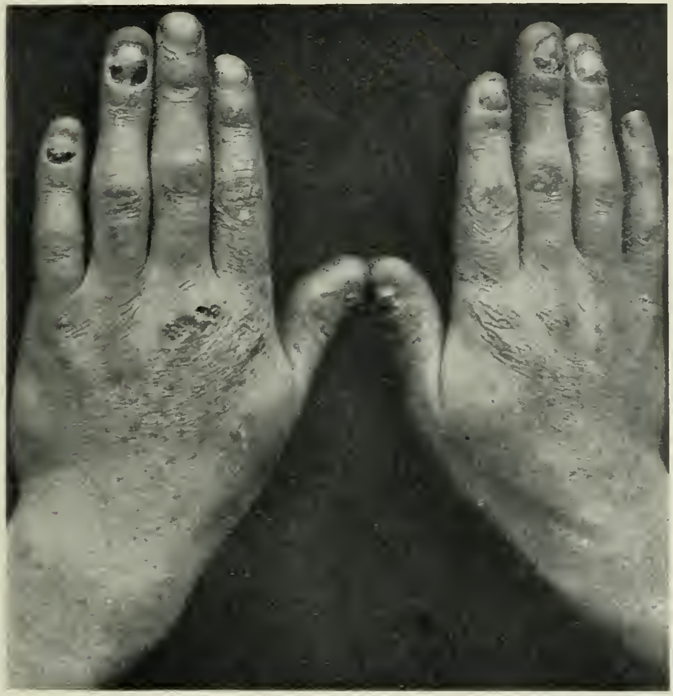

FIG. 2.—Hands of N. M— (Case 1).

After two months the œdema was sufficiently cleared up to allow him to return to work. On November 19th he came with a general urticaria after a meal of winkles on November 17th.

N. M— has had four children: (1) Male, died in infancy from pneumonia. Was affected with the disease. (2) Female, D. M—, unaffected. (3) Female, M. M—, affected (*vide* Case 2). (4) Male infant, M—, unaffected (*vide* Case 3).

Case 2.—M. M—, aged 6 years. Second daughter of N. M—.

Began to have blisters when a fortnight old. Affected in the same areas as her father, but I have also seen a blister on the palm of the hand. Has epidermal cysts in greater abundance than her father. Some of the finger-nails show small irregularities, but are not markedly affected yet. Has had several large blisters on limbs during the last three months. Is worse in spring and autumn. Has cold extremities with tendency to cyanosis. Heart, lungs and abdomen, nothing abnormal found.

Case 3.—Infant, M—, aged $1\frac{1}{2}$ years, male.

Did not show the disease till three months old. Was treated for some time with grey powders with no result. Affected on extremities. Epidermal cysts present. Legs tend to show the same cyanotic effect as in the other two cases.

Blood Examination.

In several cases of Epidermolysis bullosa the blood examination has been negative.[2] The complete blood examination of Case 1 and the differential counts in Case 2 and in D. M— (the unaffected daughter, done as a control) was very kindly undertaken by Dr. Gordon Ward, to whom I am indebted for the following report and comments:

"*Report on the blood of three members of the M— family.*—I have examined the blood of Mr. M— and of his two children. In the case of the children I had only films, and have taken advantage of your own figures for the total red-cell count, etc. I was not aware which of the children was affected when examining the films, so that the personal equation was, as far as possible, eliminated. The percentages of white cells are based on a differential count of 500 in each case. The figures are :

	Father.	Affected daughter.	Unaffected daughter.
Red cells, per c.mm.	6,995,000	5,875,000	5.150,000
Hæmoglobin, per cent.	102	105	100
White cells, per c.mm.	13,400	7.500	7,200
Differential polymorphs, per c.mm.	8.469	3,720	4,738
" " per cent.	63·2	49·6	65·8
Eosinophiles, per c.mm.	670	255	144
" per cent	5·0	3·4	2·0
Mast-cells, per c.mm.	27	45	None
" per cent.	0·2	0·6	"
Transitionals, per c.mm.	723	255	562
" per cent.	5·4	3·4	7·8
Small mononuclears, per c.mm.	3,323	3.195	1,670
" " per cent.	24·8	42·6	23·2
Large mononuclears, per c.mm.	188	15	86
" " per cent.	1·4	0·2	1·2
Myelocytes, per c.mm.	None	15	None
" per cent.	"	0·2	"

"I would call attention to the increase of red cells in the first two, which is what one would expect from the condition of their skin—*i. e.* easily cyanosed and very deficient in subcutaneous fat. I should imagine that a slight polycythæmia is an almost constant feature of this syndrome. The eosinophiles are definitely increased in the father and in his affected daughter, just exceeding the normal upper limit of 250 per c.mm. or 2·0 per cent. In view of the fact that some degree of lymphocytosis has been noted in cases of hereditary and unexplained œdema, and that the father seems to show such a condition, but of relatively recent onset, it is interesting that he should have over 3000 per c.mm., as also his affected daughter, while the unaffected daughter has only 1670. It would be difficult to assert that these figures are above normal, but the coincidence is interesting. It may be noted that the increase of polymorphs in the father is probably due to the septic place on his leg at the time of this count."

The Family Tree.

There are 22 recognised cases of Epidermolysis bullosa in this family in five generations out of 62 individuals.

In searching for some of the branches of the family, I have to acknowledge my thanks to Dr. Graham Forbes and Miss Macdonald, who very kindly visited several cousins, confirming and adding to the list.

In the accompanying tree the affected members are marked ● ●, and the unaffected ♂ ♀. For the sake of making the hereditary line complete, I have indicated the partners in marriages.

The mother of N. M— lost nine children in infancy. She is a chronic alcoholic, and it has not been possible to determine if any of them were affected.

Comparison with other Cases.

Age-incidence.—In one instance (Williams[3]) there was adhesion of various parts of the body at birth and the disease itself appeared when the child was a fortnight old. This is suggested as evidence of prenatal affection. In our family the disease is not present at birth but appears during the first few months of infancy.

Sex.—In those records where I have been able to find the sex the proportion is males : females : : 53 : 34. In our family the proportion is males 13, females 9.

Area affected.—The area most exposed to injury is the area usually affected. In the girls of this family, however, it is common to get the head affected, so bad in some cases as to lead to their occasional exclusion from school. In some recorded cases[4] the mouth and tongue is affected. In ours this is not so. In one case[5] the penis only escaped. The general health is almost invariably good.

Epidermal cysts are present in all three cases, also apparently in most other members of the family. Letters from some speak of "the seeds coming out," "the little white seeds under the skin."

General features.—All three cases and those other members of the family from whom I have been able to obtain details obey the six cardinal points enumerated by Payne.[6]

Heredity.—In eight instances the disease was handed on by an affected male, never by an unaffected male, in two instances by an affected female, and in one by an unaffected female,* the daughter of an affected male.

In no single instance where there have been children has an affected individual failed to hand on the disease.

Gossage in a paper on heredity points out that, supposing Epidermolysis bullosa to be a Mendelian allemorph dominant to the normal,

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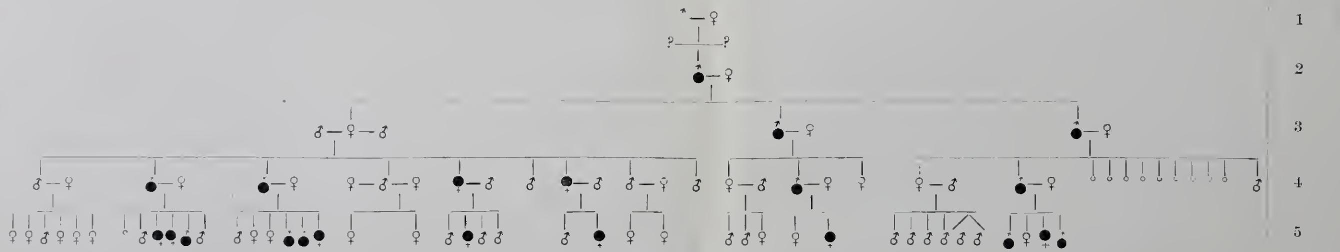
* A son of this woman has been seen by Dr. Stainer at St. Thomas's Hospital, and tells him that she was affected with the disease.

EPIDERMOLYSIS BULLOSA. 1913. MITCHELL FAMILY.



●♂ 13. ●♀ 9. ♂ 22. ♀ 18.

an affected individual must, being the product of one abnormal and one normal parent, have equal numbers of abnormal and normal gametes, which when mated with a normal individual should reproduce equal numbers of affected and unaffected children, always supposing that a sufficiently large number of cases are taken. Taking this family with twenty-six others where the ratio is stated, the figures work out—males 212, females 265, or 4 : 5. This is a fair proportion allowing for the great difficulty in getting all the members of a family together.

No instance is to be found where two affected individuals married.

The number of single isolated instances of the disease recorded (about twenty) suggests that the origin in any family may be an example of a new character appearing by a process of discontinuous variation.

Pathology.

Epidermolysis bullosa was definitely separated from pemphigus and other bullous eruptions in 1886 by Köbner, who gave it its present descriptive and non-committal name. Subsequent theories still wait for confirmation before becoming accepted facts. It is quite clear that blister formation and nail-lesions with scarring are in the healthy individual the normal reaction to severe injury. The blistered feet of a tired soldier on the march (one such has been allowed to creep into the literature of Epidermolysis bullosa), the familiar trapped finger with blisters and later disfigured nails, the local asphyxia and blisters of frost-bite, and lastly, X-ray dermatitis, are all normal reactions to severe injury. Epidermolysis bullosa resembles these conditions in many ways. What, then, is present in persons affected with Epidermolysis bullosa which allows lesions similar to these to occur with what is normally a subliminal stimulus? Now, not only does Epidermolysis bullosa resemble conditions produced in a healthy individual by severe injury, but to a still more striking extent does it resemble a whole group of conditions where the lesion does occur in response to a normally subliminal stimulus. The cyanosis, the coldness, the thin, atrophic skin, the blisters and their unhealthy scars, and finally, the nail changes, have strongly reminded all of us who have seen this group of cases, of the hands of persons suffering from the class of nerve-lesions, examples of which one has seen in divided peripheral nerves, anæsthetic leprosy, syringomyelia, peripheral neuritis, poliomyelitis.

Cane[2] realises the similarity in appearance between Epidermolysis bullosa and nerve leprosy, and he discusses the differential diagnosis.

Beatty[8] makes suggestions in the same direction, thus: "Whether the tendency to the formation of bullæ (which was congenital in most of the cases observed) is due to an abnormality in the structure of the vessel walls or to some defect in the vaso-motor nerves of the parts is uncertain."

I believe that Petrini-Galatz, in a paper which I have not had the opportunity to see, enters into this view fully.

The unmistakable similarity between Epidermolysis bullosa and unquestionable trophic lesions, both in the degree of the casual injury and in effects produced, must lend support to the theory that it is a disease of some part of the trophic nervous system. In this connection, too, there may be a relation between the œdematous leg of N. M— and some of the trophic œdemas.

Finally, here is an example of hereditary defect at the outset in some tissue or group of tissues, which may be compared in its ultimate nature with the human jerry-buildings or so-called abioses such as Friedreich's syndrome, achondroplasia, or the muscular dystrophies.

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MORBILLIFORM NÆVUS WITH HEMIHYPERTROPHY.

By E. WARD, M.D.Camb., F.R.C.S.Eng.

On July 26th I saw a woman, Mrs. R—, aged 25 years, pregnant for the third time and complaining of sickness. On examining her I noticed a blotchy mottling of the skin, present since birth, and of which she was somewhat ashamed. The mottling was of a bluish-red colour, disappearing on pressure, and had the appearance of a moderately profuse measles rash, so much so that but for its distribution it might have led to a difficulty in diagnosis.

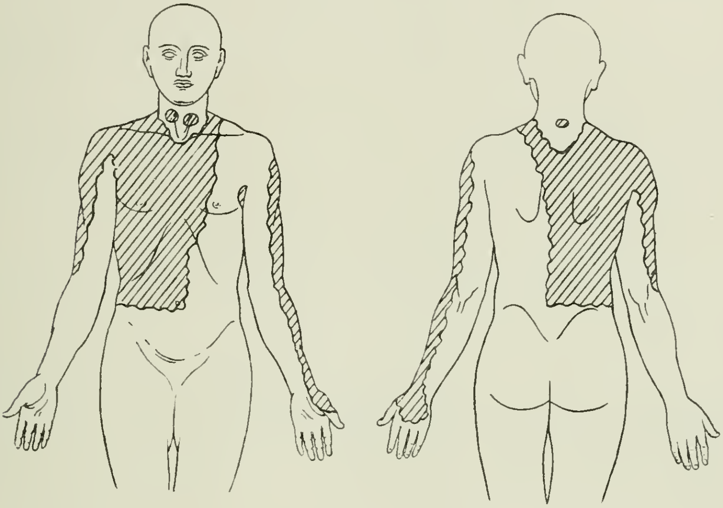

Diagram illustrating the distribution of mottling. The shaded area is the part affected.

The distribution of the mottling is roughly shown on the accompanying diagram. It covered the right side of the trunk from one inch below the umbilicus to the base of the neck, and was, roughly speaking, limited by the midline of the body, back and front, except in the region of the left nipple and just above this, and over a corresponding area at the back. It also extended down the outer side of the right arm as far as the elbow. A strip of mottling extended down the outer side of the left arm and covered the greater part of the left forearm, including the dorsum of the hand and the thenar eminence in front. There were islands of mottling on the neck and in the left axilla, but the lower extremities were free.

The condition of mottling was the same on three different visits, showing that it was permanent and not temporary.

The woman was generally well developed, but, at a glance, the right arm was longer and stronger than the left. The right arm, from the tip of the acromion to the end of the middle finger, with the arm held horizontally forward, measured 31½ in., the left 30⅛ in. The right forearm and right calf were each 1 in. more in circumference than the left limbs at corresponding points. The thorax, just above the breasts from mid-sternal to mid-dorsal line, measured, on the right side, 15¾ in., on the left 15 in. The legs were of the same length.

All the teeth were absent and a denture was worn. In the lower jaw the patient had only cut, at any time, the canine teeth of the first dentition; in the upper jaw there had been "a few" teeth of the first set, and eleven second teeth which soon decayed.

I was informed that this patient as a baby was very blue for a year or two, after which her colour became normal.

Two of the patient's sisters had also defective teeth, and the child of one of these has a spina bifida; the patient's own first child was "mottled like herself," she tells me, but only lived nine weeks.

(1) I can find no record of a similar condition, but *morbilliform nævus* best describes the condition.

(2) The occurrence of hemihypertrophy on the side of the nævus is interesting. Possibly there was some local difference in vasomotor control leading to a larger blood-supply to the muscles and bones of the right side as well as to the skin.

(3) The record that the patient was a blue baby suggests the possibility of a congenital heart defect which may have been rectified in the course of further development, as sometimes happens. I could detect no cardiac abnormality when the patient was seen and there were no cardiac symptoms.

(4) The defective teeth in others of the family is also noteworthy. There is no history of a similar nævus in other members of the family, but I hope to have an opportunity sooner or later of making certain about this point.

CRITICAL REVIEW.

PROTEIN METABOLISM IN DISEASES OF THE SKIN.

By H. LETHEBY TIDY, M.D.,
Physician to the Great Northern Hospital; Demonstrator of Clinical Pathology, London Hospital.

In the *Journal of Cutaneous Diseases* for November, 1913, appears a long and valuable article on "Protein Metabolism in Psoriasis," by Drs. Schamberg, Ringer, Raiziss, and Kolmer.*

The authors arrive at the following conclusions with regard to the metabolism:

(1) Patients suffering from psoriasis exhibit a remarkable retention of nitrogen. This retention appears to be proportional in a general way to the extent and severity of the eruption present. On a full diet the retention may be as much as 11 grm. of nitrogen daily, but retention also occurs on a low protein diet.

(2) The nitrogen is retained and stored in the system.

(3) The retention of nitrogen is not always associated with a corresponding gain in body-weight.

(4) The nitrogen is retained to a greater extent than has been observed in any other condition, and the retention still occurs on a diet on which a normal person would fail to maintain equilibrium.

(5) The retention is not due to any renal disturbance.

(6) The retention in most cases is greater than could be accounted for by the protein lost in the scales.

(7) The retention persists in some cases after scaling has ceased.

The retention of nitrogen is estimated in the usual manner, by the difference between the amount of nitrogen ingested in the food and the amount of nitrogen which passes out of the body in the various excreta. In ordinary experiments on metabolism these excreta are the urine and fæces, but in the special condition considered large quantities of nitrogen may be lost by the skin, and on many occasions the authors collected the scales and analysed them.

The authors consider that their analyses show that in psoriatic individuals there is a specific storage of nitrogen in the body, which can continue in the absence of scaling. We may accept without discussion the evidence which they produce that there is no disturbance in the eliminative capacity of the kidneys.

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* *The Journal of Cutaneous Diseases*, New York, November, 1913, "Protein Metabolism in Psoriasis."

The theory that diseases of the skin are associated with or due to errors in metabolism is, of course, an old one, and has been held especially by the French school. To a great extent the Germans have opposed this view. Many analyses of the urine have been made, all of them until the last few years being worthless. The French were at one time great offenders in this direction, drawing a conclusion from a single estimation of urea. The Germans were not blameless in former years, for even the great Hebra, an opponent in general of the metabolic view, based a theory of the origin of a certain disease on the chemical analysis of the liquid contents of a single boil.

The methods of the present authors are, as one would expect, in accordance with all modern requirements. The difference between the ingested nitrogen and the nitrogen in the urine and fæces must be taken to be as stated.

With regard to the conclusions, we may consider the following questions:

(1) Are the results obtained peculiar to psoriasis?
(2) What is the explanation of the apparent retention of nitrogen?
(3) Does the retention continue after the scaling has ceased?

(1) *Are the Results obtained peculiar to Psoriasis?*

Previous investigations worthy of consideration in diseases of the skin are few in number, but those which exist throw some light on the present work. Apparently they have not been considered by the authors.

Selenew (1), in 1905, studied the protein metabolism in a severe case of Pemphigus foliaceus. In analyses extending over thirteen days an average of 10 grm. of nitrogen daily was unaccounted for by the excretion in the urine and fæces. The nitrogen in the diet and excreta are almost identical with those found by the authors in their researches on psoriasis in one of their cases. Selenew further measured the amount of nitrogen in the scales, which amounted to 5 grm. of nitrogen daily. He arrived at the conclusion that the nitrogen which remained unaccounted for was lost in serum and scales which escaped attention.

Radaeli (2) carried out numerous observations on Lichen planus and pemphigus with the desire to prove that an increased protein metabolism occurred in these conditions. One case of pemphigus may be referred to. On a diet of 13·5 grm. of nitrogen this patient "retained" 3·25 grm. of nitrogen daily. The weight was stationary. The amount of retention diminished as the condition improved.

The writer of this review (3) examined the protein metabolism in three cases of exfoliative dermatitis and found a high degree of "retention" of nitrogen. One of the cases was investigated at intervals over a period of ten months. The average excess of the nitrogen of the food over that of the urine was over 8 grm. daily, the diet containing about 15 grm. of nitrogen. The variations in weight were slight. The fæces were not examined, but could not account for more than a fraction of the "retention." The writer concluded that the balance of nitrogen was accounted for by loss from the skin.

This list is not exhaustive, and other instances were referred to in the discussion which followed the reading of Drs. Schamberg and Ringer's paper.

It is obvious from these instances that the retention of nitrogen found by the authors in psoriasis is not peculiar to that condition. The generalisation may be made that this "retention" will be found to occur in all conditions in which the skin is widely affected by inflammatory or proliferative conditions.

(2) *What is the Explanation of the Apparent Retention of Nitrogen?*

There are several possibilities to account for the lost nitrogen.

(i) A true storing of nitrogen in the body occurs.

This is the view which the authors take. They consider that the growth and proliferation of the epithelial cells of the skin remove an enormous amount of protein (or its constituent parts) from the circulation. So far we may agree, but the authors suggest that there is a permanent storage occurring at this site. Now one of their cases was retaining nitrogen at the rate of many grammes daily over a period of four months, and one of the writer's over a period of ten months, without any corresponding gain in weight in either case. In metabolism experiments over a short period it has frequently been observed that the gain in weight did not correspond to the retention, and this can be explained justifiably by variations in the amount of water in the body. Such an explanation cannot be applied to the two cases referred to, for the amount of water which a body (unafflicted with œdema) can lose is strictly limited, and quite insufficient to account for all the retained nitrogen.

It appears obvious that if all this nitrogen were stored as protein in the skin, these patients at the end of the periods would have had skins of extraordinary thickness.

On these grounds we arrive at the conclusion that no true storage of nitrogen occurs. The nitrogen must pass from the body in some manner other than the urine and fæces.

(ii) There is some abnormal form of excretion apart from the skin.

In the discussion which followed the reading of this article in America, one of the authors suggested that the excess of nitrogen might pass from the body in some abnormal form, that, for example, ammonia or some other volatile compound might be excreted through the lungs.

Such an explanation is inherently improbable. Nitrogen has never been detected escaping by such a path. Further, it has been pointed out that the retention of nitrogen is common to several varieties at least of wide-spread diseases of the skin, and the explanation must be equally general. It is even more improbable that such an abnormal form of metabolism should be common to various conditions.

(iii) The nitrogen is lost through the skin.

The possibility of this occurred to the authors immediately, and in many of their cases the scales were collected and the nitrogen content estimated. Unfortunately, no account is given as to how this extremely difficult collection was performed. In the most severe case the average amount of nitrogen lost daily by the scales was about 0·9 grm.

The number of previous estimations of nitrogen lost in this manner is very small. Quinquaud, in a case of psoriasis, found that the scales contained an average of 4·24 grm. of nitrogen daily during the period of a month. Von Noorden, in a case of psoriasis, found that the scales shed in nineteen hours contained 3·12 grm. of nitrogen.

Analyses have also been made in other conditions than psoriasis.

Thus Selenew (1), in the case of Pemphigus foliaceus referred to above, found an average of nearly 5 grm. of nitrogen daily in the scales over a period of thirteen days.

These figures show what enormous quantities of nitrogen may be lost through the skin. Also the difficulty of collecting scales quantitatively is very great. Selenew, for example, states his belief that the collection was not complete in his case.

Let us consider what must be the protein metabolism in these three cases in which the nitrogen in the scales has been estimated. It is obvious that the nitrogen excreted in the urine and fæces must be daily many grammes less than the nitrogen ingested in the food. Further, in view of the improbability that the collection of scales was quantitative, the apparent retention of nitrogen would be incompletely accounted for by the nitrogen so estimated. These cases, therefore, must have shown, and in the one case investigated actually did show, the same changes in metabolism which were found by the authors to occur in their cases.

We believe that it is unnecessary to look further for the explanation of the loss of nitrogen.

One other factor will be referred to below which is capable of explaining a retention of one to two grammes of nitrogen daily on a full diet. This is the difficulty of establishing nitrogenous equilibrium in human beings.

We believe that the observed retention of nitrogen is apparent and not real and is accounted for by loss from the affected skin.

(3) *Does the Retention of Nitrogen continue in Cases of Psoriasis after Scaling has ceased?*

The authors state, as their analyses show, that the retention of nitrogen runs roughly parallel to the severity of the eruption, but further than this, they suggest that the analyses point to retention continuing after the scaling has disappeared. They make it clear that they do not consider that the analyses absolutely prove this.

It is difficult to examine the analyses from this point of view. The authors frequently kept the patients on very low diets for the purposes of investigation. Thus one adult patient was kept for many weeks on a diet containing less than 7 grm. of nitrogen daily and of low caloric value. She lost weight during this period, and, as might be expected, retained nitrogen and gained weight rapidly when placed on a full diet during convalescence. The same difficulty complicates other cases. Some of the patients, who numbered six in all, had not recovered from the eruption when the analyses were discontinued. One patient, whose eruption was improving under chrysarobin, "retained" a total of 11 grm. of nitrogen in seven days, an average of 1½ grm. daily.

In any circumstances it is impossible to draw conclusions from small retentions of nitrogen. Although it is comparatively easy to establish nitrogenous equilibrium in certain animals, especially the dog, yet it is extremely difficult to do so in man. Von Noorden has stated that on a diet containing 20 grm. of nitrogen, a daily retention of 1 to 2 grm. may be expected. One of the Chittenden's subjects retained 1·71 grm. daily on a diet containing 11·55 grm. of nitrogen, without appreciable change of weight. Moreover, the excretion of various individuals on the same diet varies very greatly. In Folin's series of analyses in healthy men on a diet containing 19 grm. of nitrogen, the excretion of nitrogen in the urine varied between 14·8 and 18·2 grm. Every investigator in human metabolism is faced with this difficulty.

It is obviously difficult to draw conclusions from small differences between the intake and output of nitrogen. Personally, we can find nothing in the analyses of convalescent psoriatics which is not definitely within the limits of normal metabolism.

The opinions which have been expressed may be re-stated:

(1) The retention of nitrogen is common to all wide-spread inflammations of the skin.

(2) The retention is apparent and not real, and is accounted for by loss from the surface of the skin.

(3) There is no evidence of retention of nitrogen in psoriasis after the disappearance of the eruption.

In the course of these investigations, some of the patients were placed on very low protein diets. The authors believe that they have definite clinical evidence that the cases did well on low protein diets and badly on high protein diets. This observation is an extremely valuable one. Possibly a low diet, combined with the application of chrysarobin, may be found to be the ideal treatment.

The authors are continuing their investigations. It would be interesting if the analyses of uric acid were regularly made. Those recorded seem to show an increased excretion. The writer found a definite increase in cases of exfoliative dermatitis.

On the very low protein diets which the authors employed on some occasions, often with low caloric value, the metabolism must be influenced by two factors, namely, the presence of psoriasis and the conditions of partial starvation. Probably more conclusive results would be obtained from a larger diet.

We have criticised the authors' conclusions, but no praise can be too high for the care and labour which has given us these valuable and extremely interesting analyses.

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ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

MEETING held Thursday, January 15th, 1914, Dr. J. J. PRINGLE, President of the Section, in the Chair.

Dr. H. MACCORMAC showed a *case for diagnosis*. J. P—, aged 67 years. The patient had always resided in England, and, save for some slight rheumatism and bronchitis, had always been healthy. He now had arterio-sclerosis. The present condition began about eighteen months ago (in midsummer) as an itching eruption confined, according to the patient's statement, to the flexor aspects of the knees and to the axillary regions. Then "pimples" appeared on the legs, spread to the chest, and then gradually until the present condition was reached.

When first seen in April the eruption extended over the thorax, abdomen, arms, and thighs. The mucous membranes were not affected and the face was free. The lesions consisted of little nodules about the size of a hemp-seed, of solid character to the touch, and set closely together. Here and there excoriations and small blood crusts, the result of scratching, were seen, and there was some general pigmentation. Over the shoulders a considerable degree of scarring existed, but this apparently had no connection with the present condition. In some regions—especially over the lower part of the thorax in front—areas free from the condition existed. The lesions apparently disappeared at times; the patient stated that they might come and go in twenty-four hours, but this had not been verified. At one period a very considerable number disappeared completely, but at present they were more numerous than at any other time. The duration of any nodule was probably to be reckoned in weeks or months. Itching was experienced during the waking hours, and was severe. It did not interfere with sleep. During the course of the disease he had an attack of Herpes zoster, and, for a time, there was a purpuric eruption of the legs. The blood-count was normal, and the Wassermann reaction negative.

Dr. MacCormac, in answer to the President, said he regarded the case as belonging to the urticarial group, but was not clear as to the type of skin-disease in which it should be classed. Two sections which had been prepared were not satisfactory, and the third was not yet ready. The second specimen showed round-cells grouped together in the subepidermal region.

The President (Dr. J. J. Pringle) had never seen an identical case and was inclined to consider it as one *sui generis*. The periodical variations in intensity, the severity of the itching and the wheal-like lesions all seemed to point towards its belonging to the urticarial group of diseases. The nodular papules more closely resembled those of true prurigo than any familiar condition, and the amount of coarse lichenification favoured his conception of the case as being a true prurigo senilis. He had seen the case once previous to its exhibition and had hurriedly run through recent French literature of the subject, thereby arriving at the conclusion that it was not an example of Besnier's *Prurigo diathésique*.

Dr. Whitfield said that the first disease which came into his mind when he saw this case was the so-called pseudo-leukæmic prurigo, but he found no other symptoms of pseudo-leukæmia, and the blood examination would not give any help. It might be that the general condition would develop later, but of course that was purely hypothetical. He had been through the literature of the eruptions in pseudo-leukæmia some three years before, and he did not remember finding any record of the eruptions preceding the other symptoms of the disease. The French authors described a disease which did not always begin in children and which they called *Prurigo à papules grosses*, and he wondered whether this might be an example of it. At any rate he agreed that this was a prurigo papule, and he thought if examined it would show a curious dropsical degeneration of the deeper layers of the epidermis, a good deal of œdema of the papillary body, and some collection of small round-cells.

Dr. Sequeira said he had recently been through the literature of some of these conditions, and he believed there was not only a papular but also a small nodular type of prurigo described. They occurred in adults and were very chronic.

Dr. MacLeod expressed his agreement with the President's view. At first he thought it was possibly pseudo-leukæmic prurigo. At the International Congress he showed an elderly man with papules not unlike those in the present case, all over the body. There was much pigmentation, and one could see dug-out scars. It turned out to be Dermatitis herpetiformis, but he did not think the present case was one of that disease. He agreed that the present patient's condition was a disease *sui generis*—a toxic prurigo occurring in an old man.

Dr. Pernet said a prurigo (*Prurigo diathésique*) had been described by Besnier, and he had been in the habit of giving the name "prurigo de Besnier" to cases in elderly people presenting irritating papules somewhat of this type. The case might fit into that category, though it was of a more aggravated type than he had ever seen.

Dr. Douglas Heath said one met with cases of old people with a very severe irritation of the arm or leg or in the beard area, and yet no nodules of this kind developed, so there must be some toxic element, or some peculiar susceptibility in this case. In his experience it was uncommon for urticaria to develop into a pruriginous condition. The present form was most like the urticaria seen in toxic conditions such as jaundice. Intestinal intoxication might be at the bottom of it; possibly the man had obstinate constipation.

Dr. F. Parkes Weber said he also did not think that the case was one either of so-called "pseudo-leukæmic prurigo" or of cutaneous nodules connected with true leukæmia. He did not know whether in pseudo-leukæmic prurigo the cutaneous papules were ever as numerous as in Dr. MacCormac's patient. He thought that in using the term "pseudo-leukæmic prurigo" one must regard "pseudo-leukæmia" as synonymous with Hodgkin's disease, which in reality it was not. So far, in this case, there were said to be no signs in the blood of true leukæmia. The presence of great itching was, moreover, a point against diagnosing the case as one of true leukæmia with multiple cutaneous deposits, but without any as yet typical blood changes.

Dr. Whitfield, in further comment, said he wished to make his position clear. He was quite familiar with leukæmic growths of the skin; the growths of lymphadenomatous prurigo (Hodgkin's prurigo) had no relation, anatomically, to true leukæmia of the skin. The tumour growth of leukæmia could be diagnosed at once; it did not consist of small nodules but of infiltrated patches. He did not think that in this section there was likely to be confusion between prurigo or the pruriginous papule in Hodgkin's disease and the leukæmic infiltration which one found in true leukæmia.

Dr. J. H. Sequeira showed a case of *Pityriasis rubra pilaris*. The exhibitor was indebted to Dr. Keane, of the North-Eastern Fever Hospital, for the opportunity of examining this case and also for the notes of the earlier condition.

Abstract of Dr. Keane's notes: R. B—, aged 9 years, female, was admitted to the Fever Hospital on September 23rd, 1913, certified as scarlet fever, which diagnosis was confirmed. On October 3rd Dr. Keane noticed very extensive desquamation on the trunk, with a "second rash" appearing beneath. The erythema and desquamation in a few days involved practically the whole of the trunk, the upper arms, and the thighs, the distribution being "that of a man's bathing suit." On a few small areas thus involved could be seen pink, acuminate papules dotting the white skin. On October 7th the skin had a sodden feel, the exfoliation was considerable, and the patient complained of intense irritation. The neck and the skin about the mouth were now similarly affected. An ichthyol ointment was applied. On October 10th the condition had improved, the irritation was less. The scalp was extremely scurfy, and the forearms, legs, etc., showed some yellowish, horny, acuminate papules. From October 15th to 25th the patient was on small doses of thyroid extract, the ichthyol ointment being suspended. The skin was now very dry, wrinkled, silvery, but there was no exfoliation at this stage or later. On stopping the thyroid and re-applying the ointment and giving an alkaline bath twice daily, with the administration of arsenic internally, the eruption began to subside. At this stage the face was brownish, "like that of a Mexican"; the hands desquamated in the usual way about October 20th. The child was discharged from the fever hospital on December 11th, 1913, her trunk then showing several patches of normal skin. The father stated that the child had had an exactly similar attack in October, 1912; the eruption then lasted four months. Dr. Keane made the diagnosis of Pityriasis rubra pilaris.

When the child was shown at the meeting of the Section the scalp was covered with branny flakes; the eruption on the face was evidently fading, but it had a scaly character. The neck and shoulders and the upper part of the chest were covered with an eruption of papules of the characteristic colour of Pityriasis rubra pilaris, but in many parts the papules were of a flat type. Here and there were areas of normal skin. On the neck and upon the sides of the chest there were discrete, acuminate, horny papules characteristic of the disease. The dorsal aspects of the proximal phalanges of the fingers were practically normal. The buccal mucosa was normal.

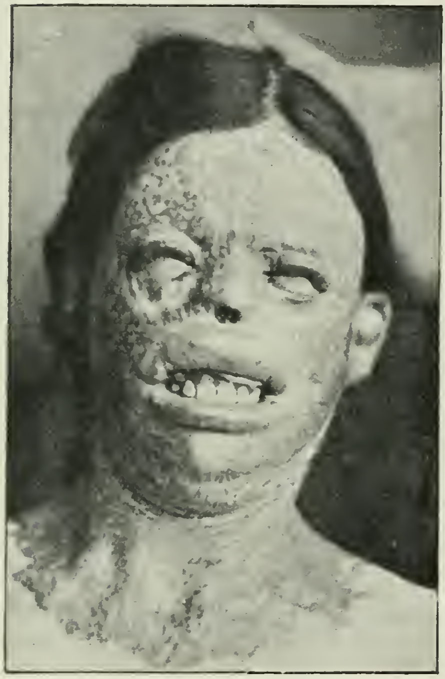
The special points of interest in the case were (1) the possibility of the scarlatinal eruption being a scarlatiniform erythema at the onset of Pityriasis rubra pilaris. The fact that the case was diagnosed as "scarlet fever" by an extremely competent observer, who had Pityriasis rubra pilaris in his mind, and who definitely recognised the "second eruption" occurring as the first faded, may be taken to negative this view. On the other hand, there is the history of a previous attack in 1912. (2) The second point was the large number of plane papules which were present. Acute Lichen planus was negatived by the colour of the eruption, by the presence of characteristic acuminate papules, together with the condition of the scalp and the face.

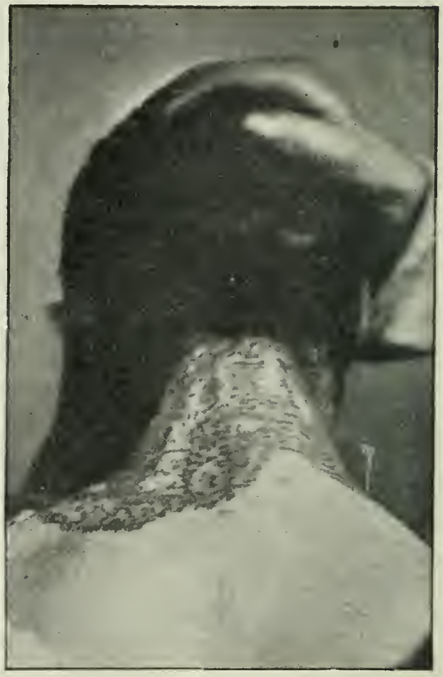
The **President** regarded the case as one of exceptional interest, as it might, on cursory examination, mislead the most experienced. At the first glance the lesions on the thorax irresistibly suggested a Lichen planus, and the absence of characteristic lesions on the backs of the fingers might further lead one astray; but the appearance of the face, scalp and neck left no room for error. He could not doubt that the patient had suffered from scarlatina, and he was unaware of the occurrence of a prodromal erythrodermia in Pityriasis rubra pilaris.

Dr. **Haldin Davis** said he had had an opportunity of following up a case of Pityriasis rubra pilaris which had been shown to the Section by Dr. Adamson. The patient, a little girl, had had two attacks, each having been associated with a rise of temperature and general erythrodermia, with a red tongue; and it was much debated at the hospital whether she should be signed up as a case of scarlet fever. It was decided not to do so. After each attack she desquamated. There was an interval of some months between the two attacks. He understood the explanation was that people who suffered from this condition were liable to periodic exacerbations. She still attended occasionally, and the original eruption still persisted.

Dr. **Dore** said he remembered a case in which there was a preliminary erythrodermic stage and in which the eruption on the abdomen was bright scarlet, resembling that of scarlatina. He believed that Pityriasis rubra pilaris was recognised in fever hospitals as one of the conditions which might simulate scarlet fever. The patient, who was shown at the Dermatological Society of London, subsequently developed generalised sclerodermia.

Dr. W. **Knowsley Sibley** showed a case of (?) *tuberculide*. The patient is a black-haired Jewish girl, aged 13 years, who, when aged about four, had a lesion of the nose, presumably Lupus vulgaris, but the diagnosis was never very definite. In 1904 she is stated to have received about twelve Finsen and X-ray treatments at about one week intervals. After this the whole face became acutely inflamed and ulcerated, and remained so for many months. In August, 1905, the following note was made of her condition: "Each cheek is an ulcerated surface covered with pustules and scabs. The edge seems active and spreading quickly. No definite lupus nodules to be seen." In March, 1906, it was noted that "the child has not been brought up since August, 1905; case completely neglected and very much worse; whole face involved." Some months afterwards the condition she now presents spread down from the face round the neck on to the shoulders, and in front over the upper part of the manubrium sterni and inner third of the clavicular regions. The condition has remained more or less stationary for the last twelve months. Practically the skin over the whole of the face and ears is destroyed, and replaced by thin scar-tissue. The tip of the nose has ulcerated away. The upper lip has also been destroyed, and the gums and teeth are exposed. Both the upper and lower eyelids have also been destroyed, and there is ectropion and epiphora. The scarring over the face has a deeply pigmented and reticulated appearance, and some scattered, pigmented, slightly raised granulomatous papules are present in places. The skin of the neck, both anteriorly and posteriorly, is deeply infiltrated with pigmented granulomatous papules arranged more or less in irregular, wavy, crescentic lines with a very irregular





but definite margin, extending all round the neck; in front down over the middle of the manubrium sterni, over the inner thirds of the clavicular regions, and posteriorly, on the left side over the suprascapular legion, not quite so low down on the right side. The margin is everywhere very definite and raised. On the right side behind two or three isolated granulomata exist, some 2 cm. outside the definite margin of the main lesion. The condition on the face is more or less limited by the margin of the hair-follicles of the scalp, except in one part of the left frontal area, where the region of the hair-follicles is invaded for a short distance. In no part is there any ulceration. The von Pirquet reaction is positive, and the Wassermann negative. There does not appear to be any involvement of the lymphatic glands of the neck. A section taken from one of the outlying papules on the back of the neck showed a typical tubercular granuloma with a large number of giant-cells present. Tubercle bacilli could not be detected.

The child is an orphan, and it has been impossible to obtain any very concise history, but I should suggest that the sequence of events was as follows: As a little girl, aged 4 years, she had a Lupus vulgaris of the nose. She was treated by an unprotected X-ray tube on several occasions. This was followed by a severe radio-dermatitis of the whole of the face, for which she was admitted into the hospital for about a month; after this the condition was neglected for some time. The dermatitis subsided after many months, and has left this frightful disfigurement. At some period during the X-ray ulceration on the face this became inoculated with tubercle bacilli, probably from the initial lupus on the nose, possibly from an extraneous source. The original lesion on the nose is cured, but a gradually spreading pigmentary tuberculide has persisted.

Dr. **Whitfield** said he wished to protest against the nomenclature applied to this case. It would be agreed that this was a case of extensive lupus in which X-rays had been applied so strongly as to cause a dermatitis; but why was it called a tuberculide? Surely the name had been used as a convenient term to describe a certain class of eruption which was supposed to be caused by generalisation of tuberculosis by the blood-stream. The characteristics of the tuberculides were that they were generalised, usually symmetrical, and non-progressive—that is, not serpiginous. Lupus, although of course also a tubercular eruption, had its own characteristics, and if it was to be called a tuberculide the term "lupus" must be dropped. He thought that the word "tuberculide" was generally used by the London school of dermatology in the sense which he had just mentioned, and that the term was analogous to that of syphilide as applied to the secondary symptoms of constitutional syphilis.

Dr. SEQUEIRA agreed with the remarks made by Dr. Whitfield. Hallopeau had differentiated between the toxi-tuberculides in which no bacilli were found and the bacillo-tuberculides in which the organisms were present. Dr. Sequeira objected to the application of the term "tuberculide" to a case such as this. There would be presently shown, by Dr. Gray, an excellent example of tuberculide, in which there was evidence of the dissemination of the poison, whatever its nature might be, through the blood. He considered the case to be one of lupus, spreading by satellite spots, the characteristic feature to which Hutchinson attached so much importance.

Dr. MACLEOD considered that it was unfortunate to designate the type of case exhibited as a tuberculide, and believed it to be a tuberculous condition more of the nature of Lupus vulgaris. He referred to the confusion which had arisen in connection with the term "tuberculide." The name "toxi-tuberculide" was employed by Hallopeau and Darier to describe certain eruptions which were known to be associated with tuberculosis, but in which bacilli had not been found in the skin, and which were believed by them to be produced by toxins from tubercle bacilli situated in some distant focus. When the term "tuberculide" is used it signifies toxic tuberculide in its original sense, and is not in any way analogous with the much more widely applicable term "syphilide."

Dr. GRAY did not see why Dr. MacLeod should want to alter the term "tuberculide" because bacilli were found in the lesion. One did not want to alter the term "syphilide" because the spirochæte was found in the lesion, although when that name was first used the lesion was thought to be due to the toxin.

Dr. DORE agreed with Dr. Whitfield as to the nomenclature in this case, but found difficulty in accepting dissemination through the blood-stream as the criterion of a tuberculide, on account of the fact that cases of multiple lupus following measles spread through the blood-stream and could not at all be due to inoculation.

Dr. WHITFIELD admitted that in the case of multiple patches of exanthematic lupus the tuberculosis was derived from the blood-stream in all probability, and in such cases the distinction did not apply so well, though the fact that these patches of lupus were serpiginous took them out of the class of tuberculide. At all events, such cases were rare compared with the ordinary non-progressive tuberculide. As regards the name "toxi-tuberculide," he thought that the term "tuberculide" originally meant a certain class of eruption connected with tuberculosis and derived through the blood-stream, and that the term "toxi-tuberculide" was an after-thought devised by those who thought that these eruptions were not bacillary in origin. It had been proved in many of the tuberculides that the bacillus was present locally in the eruption, and he believed that this was true of all the tuberculides. The fact that it was not always found proved nothing, as he would ask how many of those present had ever found the bacillus in ordinary lupus. Personally, while he had demonstrated the bacillus in a typical case of nodular tuberculide at that Section, he had never found the bacillus in ordinary lupus.

The PRESIDENT said the discussion had been of great practical importance and not merely of academic interest. He concurred with previous speakers in deprecating the nomenclature adopted by the exhibitor, and hoped that the Section would set the seal of its approbation upon the interpretation of the term "tuberculide" as being the result of a systemic infection and not a purely local tuberculous extension.

Dr. SIBLEY replied that he used the term "tuberculide" here in the sense he believed it to have been used in descriptions under the heading "pigmentary tuberculides." He hesitated at first to use the word "pigmentary" here, because the patient was such a dark subject. Members of the Section seemed to consider the term "tuberculide" should only be applied to lesions resulting from the dissemination of tubercle bacilli in the blood-stream, when there were scattered foci, excluding that term when it spread from one more or less localised focus, as in this case. He did not agree that the present lesions in this patient could be correctly called lupus, but that the pigmentary tuberculides often closely resembled some of the pigmentary syphilides, and that the same terms could be used.

Dr. W. KNOWSLEY SIBLEY also showed a *case for diagnosis*; (?) *epithelioma*. The patient is a well-developed boy, aged 16 years, who for about two years has had a severe ulceration of the soft palate, accompanied by a discharge of a purulent nature from the right ear. His parents are both living and well. He is the youngest of three, and both the older boys are strong and healthy. His mother never had a miscarriage, nor is there any history of phthisis in the family. The Wassermann reaction at this time is stated to have been negative, and tubercle bacilli could not be detected in the expectoration. The local condition in the throat improved under iodide of potassium. For rather more than six months he has had an exuberant ulceration of the left alæ nasi with a well-marked, raised margin, which bled freely when touched. There was a very offensive discharge from this. There does not appear to be any involvement of the lymphatic glands. Three weeks ago the lesion on the nose presented the appearance shown in the photograph I exhibit—one of a fungating, breaking-down, very offensive tumour formation. On December 24th I applied rather more than a full Sabouraud's pastille dose of X-rays (unscreened), and within a very few days there was a very marked improvement in the character of the growth, and there has been a rapid retrocession ever since without any internal treatment.

I am indebted to Mr. de Santi for the following report as to the present condition of the throat: "There is old scarring of the soft palate and posterior pharyngeal wall, which I take to be either specific or lupoid. The uvula is gone, so also the epiglottis. There is a lupoid affection of the larynx, with swollen, pear-shaped arytænoids and ulceration of the vocal cords."

No tubercle bacilli could be detected in the expectoration, but plenty of pus-cells, squamous epithelium, streptococci, diplococci, and staphylococci. There are no definite pulmonary lesions at the present time, and the modified Wassermann reaction is positive, whereas the original Wassermann reaction is still negative. A section taken from the raised edge of the lesion on the nose under the left alæ nasi shows an ulceration with thickening of the stratum corneum—the basal layer is broken through and shows a marked prolongation downwards of the epithelium, with distinct cell-nesting. There is a marked pearl-like appearance of many of the deeper cells, together with a generalised cell infiltration and a dilatation of the vessels. No giant-cells or tubercle bacilli can be detected.

DR. WHITFIELD said he thought it was probably a lesion of late congenital syphilis, though it would be necessary to remove the crusts to see, and this opinion was confirmed by the admitted fact that the Wassermann test was now positive. He saw no reason from the microscopic specimen to call the disease epithelioma, though the downgrowth of epithelium was both marked and degenerate. He believed it was almost impossible to diagnose the true nature of the growth when only a superficial piece was examined. The matter was much simpler if the piece excised was to a depth of half an inch. With regard to the reported absence of giant-cells, he found a typical pair of them in one end of the section, though he did not regard their presence or absence as of great diagnostic importance between syphilis and lupus. They were rarely present in epithelioma unless it was epithelioma on syphilis or lupus.

Dr. MACCORMAC said the section appeared to have been cut obliquely, and that would largely account for the apparent hypertrophy of epithelium. He did not regard the cell changes as characteristic of malignant disease. The general appearances of the section suggested tuberculosis.

Dr. SEQUEIRA said if this was a case of epithelioma, it must be upon either a specific or a lupus basis. If upon lupus, it was very rare for epithelioma to develop so early in the course. He had seen many cases of epithelioma on lupus, but only after the lupus had existed for a long time, ten years being the shortest. The malignant supervention was more likely when a cicatricial condition had followed the ulcerative one and had persisted for a number of years. He regarded the present case as one of congenital syphilis. The point raised about the section for microscopical examination having been cut on the slant he regarded as important, particularly in sections taken from the nose, where the appearance of epithelioma was likely to be simulated. The fact that the Wassermann reaction was positive confirmed the diagnosis.

Dr. HALDIN DAVIS was strongly of the opinion that this was now, and had been, lupus. He thought both Dr. Whitfield and Dr. Sequeira were laying too much stress on a single positive Wassermann reaction. It was strange for the reaction to have changed from negative to positive in a boy between the ages of 14 and 16 unless he had acquired syphilis, of which there was no suggestion. The Wassermann reaction was one of the most fallacious in the whole of pathology; it depended on many things; on the particular modification which was performed, and who performed it. Ordinary lupus scarcely reacted to X-rays unless applied in such a dose as to cause radio-dermatitis; but a fungating tubercular condition, which the photograph shown indicated to him, reacted well to X-rays, and the fact that the X-rays had caused such an improvement as was shown by the contrast between the condition as seen in the photograph and that now present was evidence that the disease was lupoid or tuberculous.

Dr. DOUGLAS HEATH agreed with the remarks made by Dr. Haldin Davis. Many tubercular lesions broke down in a similar manner. There were no other lesions or scars suggestive of syphilis. He had under care a typical case of congenital syphilis, with depressed bridge of nose and other stigmata, but the patient gave a negative Wassermann reaction.

Dr. MACLEOD did not consider that it was a true epithelioma, but simply a hypertrophy of the epithelium superimposed on some granuloma, either tuberculosis or syphilis. Of the two, he thought it was more probably tuberculosis, and he did not consider that the rapidity with which the lesion had developed was against that diagnosis, as he had seen lupus about the alæ nasi develop very rapidly.

Dr. DORE thought it was congenital syphilis, and he was the more inclined to that view because he had recently seen a patient with similar lesions of the palate and larynx and ulcers closely resembling those of scrofulodermia on the side of the neck. X-rays were applied without beneficial effect. The case was referred to the Throat Department, where it was thought to be lupus or syphilis. The Wassermann reaction was then found to be positive and a complete history of early chancre and secondaries was subsequently elicited.

Dr. CORBETT pointed out that this lesion had improved under X-rays. His experience was that if one X-rayed a syphilitic lesion it either remained stationary or got worse if no other specific treatment were given at the same time.

The PRESIDENT remarked that when he looked at the case casually in the waiting-room he thought it was a lupus. A further examination of the mouth and throat, however, led him to think that the patient had late hereditary syphilis. The difficulty in the differential diagnosis of such cases was notorious, and there was no reason why a congenitally syphilitic patient should not also suffer from lupus. He suggested an injection of salvarsan as a diagnostic, as well as therapeutic, measure.

Dr. SIBLEY replied that he was himself surprised when the modified Wassermann reaction was reported to be positive. The question was whether there was anything superadded. The section exhibited was not taken from the nose, but from the upper lip. He would bear the suggestion in mind about salvarsan, and report later.

Dr. GEORGE PERNET showed a case of *Acne varioliformis in a woman*. The patient was a woman, aged 25 years, with extensive Acne varioliformis of forehead and scalp of two years' duration. The disease was, in the experience of the exhibitor, unusual in women. This case did not respond to mist. ferri perchlor., which answered so well in the instance of an elderly man Dr. Pernet showed last year. But the present patient had done well on hydrarg. c̄ creta. Latterly a mild ung. hydrarg. ammon. had been ordered. The exhibitor stated that in the old days there was a tendency to look upon acne varioliformis as a condition connected with syphilis, and iodide of potassium was a favourite remedy. The Wassermann reaction was in this instance negative. Dr. Pernet did not consider the case had any connection with syphilis.

Dr. A. EDDOWES suggested that a culture be obtained from the pustules. remembering the possibility of different and mixed organisms appearing in these lesions. He referred to a rare form of acne which scarred rather superficially, and in which, before the scarring appeared, there was hypertrophy. Each pustule first became raised and semicircular, then gradually broke down, leaving a small depressed scar. Such lesions might be termed "molluscoid." He had carefully taken cultures from such a case, and found only the acne bacillus and the *Staphylococcus aureus*.

The PRESIDENT demurred to the exhibitor's statement that Acne varioliformis was formerly always considered to be syphilitic. He well remembered the elder Hebra's views on the subject, which were quite explicit. Long after their publication, Sir Stephen Mackenzie, in particular in this country, pointed out that there was a late syphilide which simulates Acne varioliformis, and his observation holds good. He thought that Sabouraud's investigations into the bacteriology of the disease were conclusive as to its nature.

Dr. A. M. H. GRAY showed a case of *disseminated Lupus erythematosus*. The patient, a woman, aged 21 years, was first seen by the exhibitor in August, 1913. She had been admitted to University College Hospital under Dr. Charles Bolton for acute pneumonia. Her illness had commenced five days before admission, and coincidently with the onset of the pneumonia an eruption had appeared on the face, hands, and to a less extent on the arms and forearms, trunk and lower limbs: the rash was fully developed in about twenty-four hours. The eruption when seen on the day after admission was most marked on the face, and consisted of a well-defined, raised, dark red erythematous area occupying the nose and cheeks, the typical butterfly area, but in addition to this numerous smaller areas were scattered about the chin, forehead, and side of the face, as shown in the illustration. The surface of the patches was smooth and shiny except in a few places, where some fine scales were present which were adherent, and when removed left a bleeding area. In addition three or four hæmorrhagic bullæ were present on the larger patch, the largest, about the size of a crown, being on the left cheek. The lesions on the hands were of similar character and most marked on the dorsum of the hands and fingers: here also two or three hæmorrhagic bullæ were present. The lesions on the other sites mentioned were of the same nature but smaller, not exceeding a pea in size: hæmorrhage had occurred into only a few of the lesions. The pneumonia ran its usual course, and the temperature fell by crisis on the sixth day after admission, continuing normal until the date of discharge, and the signs in the chest rapidly cleared up. Simultaneously the rash began to disappear rapidly, and in a fortnight's time had almost disappeared. A von Pirquet's reaction done at this time was negative, and a blood-count showed only slight diminution of red cells.

Since the patient's discharge from the hospital she has not been well, and has had frequent slight recurrences of the eruption on the face and hands. In November she complained of pain in the chest, and on examination was found to have friction at the left base. She was readmitted to the hospital, but her symptoms cleared up immediately, and she was discharged in a few days.

She was admitted again just before Christmas on account of a recurrence of the eruption, and was found to have a temperature of about 100° F. She had now been in the hospital over three weeks and her temperature had gradually fallen to normal in the last few days. She had been carefully examined to find any focus of infection but none had been detected. There was slight glandular enlargement in the neck; no physical signs had been found in the chest, and an X-ray examination of the chest had also proved negative. Blood-cultures had been made, but no organism had been grown. A few days ago another von Pirquet's examination had been performed, but this still remained negative. At the present time she had a few superficial, red, scaly patches on the face and hands showing typical Lupus erythematosus characters, but there was no atrophy from the previously more severe lesions. She had had no medical treatment in hospital until the last few days, when she was given quinine in small doses.

Six months previous to admission the eruption had appeared for the first time, mainly on the hands; it was unaccompanied by any general illness and cleared up in a few weeks. There was no definite history of tuberculosis in the family.

The case appeared to be of interest on account of the severity of the acute attack, and also on the apparent failure to demonstrate a tuberculous ætiology. It seemed to bear out the view that all cases of acute disseminated Lupus erythematosus were not tuberculous.

Dr. SEQUEIRA said an interesting point in the case was that the patient had pleurisy. In three successive cases of acute Lupus erythematosus which he had recently seen, pleurisy had been present, but in no case was there evidence that it was tubercular.

Dr. DOUGLAS HEATH said he had seen a case of the acute bullous variety of Lupus erythematosus under the care of Dr. Short. The patient had chest symptoms—a gradually increasing pneumonia. There were large blisters on the ears and face, and the result was fatal. At the autopsy the retroperitoneal glands were very large, but not, as far as he remembered, definitely tubercular. It was not possible to test the material from the patient on a guinea-pig. The patient had had a temperature of 104° F. for several days.

The PRESIDENT thought that both Dr. Gray and the patient were to be highly congratulated on the successful result of the treatment by rest in bed. All the instances of the disease he had had under his care had terminated fatally. At the present time he had a woman, actually moribund in hospital, who had for months exhibited all the blood changes characteristic of pernicious anæmia. As she had very definite von Pirquet reaction it was probable that she also had tuberculosis. Throughout the case the eruption had been markedly purpuric and there were all the evidences of an especially virulent toxæmia.

Dr. EDDOWES said that in a case of the disease which had recently come under his care there was said to be no tubercular disease in the family, but the patient's father had died of pernicious anæmia not long ago.

Dr. GRAY replied that in a case he saw some years ago which was published by Dr. Pernet the retroperitoneal glands were enlarged, and were found to be tuberculous.

Dr. A. M. H. GRAY also showed a case of *tuberculide*. The patient, a woman, aged 21 years, had suffered with tuberculous glands in the neck and axillæ from the age of fourteen, and had been operated on nine times for this affection. Previously to this she had suffered from ulceration of the eyes from the age of eight. The present condition was first noticed four years ago, red spots appearing on both hands after the last operation for glands in the neck; these spots went away in a few weeks, and did not reappear till eighteen months ago, since which time repeated crops had appeared on the hands and also on back of elbows and forearms and front of the knees. The spots were not painful, but irritated somewhat. At the present time the patient looked fairly healthy and appeared well nourished. The temperature and pulse were normal; enlarged glands were still present in the neck.

The skin-lesions were of two kinds—hypodermic and dermic. The best defined hypodermic nodule was found over the left olecranon; it consisted of a hard nodule, the size of a small hazel-nut, slightly attached to the periosteum of the olecranon, but still movable over it, and quite unattached as yet to the skin. This nodule was excised under novocaine ten days ago, and a section was shown under the microscope. On the other elbow and on both knees the later stages of the hypodermic nodules could be seen; these consisted of red indurated nodules covered by crusts, which, on removal, left a small sharply defined ulcer; also several sharply defined depressed scars were present in these situations. On the hands the lesions, at present, were situated mainly in the dermis. They consisted of small nodules from a pin's head to a pea in size, and were numerous, and situated mostly on the sides of the fingers. No active lesions were present on the palms or dorsum of hands, but some old scars could be seen on the palms. The nodules on the fingers, which showed the so-called chilblain circulation, were firm and well defined; in most cases they showed slight central necrosis, with the formation of a dry scab which subsequently fell off leaving a pitted scar; one or two of them were now capped by pustular blebs. Numerous old scars were also present on sides of fingers. The von Pirquet reaction was positive, inoculation being followed on the third day by a rise of temperature and a well-marked local reaction.

The nodule excised from the left elbow was divided into halves—one half was inoculated into a guinea-pig, while sections from the other half were shown. The periphery of the section showed the inflammatory reaction practically limited to the blood-vessels, which were dilated, and showed both epithelial and perithelial proliferation and perivascular lymphocytosis. Within this were massed together round-cells and connective-tissue cells in great numbers, with an occasional giant-cell and here and there a plasma-cell. The centre had undergone necrosis. Tubercle bacilli had been stained for, but up to the present time none had been found.

The exhibitor wished to call attention to the fact that the first attack followed, by a few days, an operation for glands in the neck. He had seen another case in which a boy developed acne scrofulosorum after an operation on a tuberculous hip, and he wondered whether such a sequel was common ; it was due, possibly, to a shower of tubercle bacilli being let loose into the circulation by the operation.

Dr. SIBLEY asked why this was called a tuberculide, and was this the same as scrofulodermia?

Dr. WHITFIELD said it was not common to find large nodes of tubercle on the elbow. This was a very severe case. He had been impressed by the hopeless outlook of these cases. In his earlier days he thought these girls grew to the age of twenty-five or thirty, and the disease slowly died away. But he had seen cases which had gone on with these nodes up to the age of forty or forty-five. He would be glad to hear of any treatment which was of the slightest avail, because the subjects of it were usually in full health, except for that and, perhaps, a chilblain circulation. He agreed that this was a typical tuberculide, *i. e.* a generalised symmetrical eruption, derived fairly obviously from one spot, *viâ* the blood-stream, after the operation. It was the most typical kind of tuberculide, in that the lesions did not show local extension to any marked degree.

Dr. GRAY replied that the main difference between the tuberculide and scrofulodermia was the fact that in the former the infection was through the blood-stream, and in the latter mainly through the lymphatic system. Scrofulodermia was due either to the bursting of tuberculous lymphatic glands through the skin, or to a tuberculous lymphangitis with ruptured abscesses and chronic sinuses. The name had also been applied to some forms of extensive fungating lupus.

Dr. A. WHITFIELD showed a case of *cutaneous atrophy, with comedo.* The patient was a boy, aged 7 years, and the history was uncertain, as he was not brought by his mother. When seen there was a large area of abnormal skin covering the left temple and encroaching on the hairy margin. This area was formed of thin, white atrophic tissue, studded closely with small pits, many of which were plugged with comedo-like bodies. It was said to have been noticed soon after birth. In addition to this there were smaller but otherwise similar areas beneath the chin, and these were of uncertain date. On the scalp there were two finger-shaped streaks of similar skin and comedo, which the woman who brought him said she was sure had been present for three weeks only. Over these patches the hair was lost. Here and there suppuration took place round the comedones. On the back of the head there was no loss of hair, but there were smaller plugs in the hair-follicles suggesting a milder form of the same disease. The boy had also ringworm, for which he had been brought to the hospital.

Dr. Whitfield had extracted one of the comedo-like bodies, and had made a crushed preparation, and had stained it. No comedo bacilli were seen, but there were one or two small colonies of bottle bacilli. The question arose, Was this really an active disease whose first symptom was the comedo, and which developed atrophy in consequence, or was the history unreliable and the case really one of congenital atrophy with secondary, so-called, "scar comedo"?

Dr. Whitfield reminded members that cases had been shown from time to time of excessive scarring and atrophy accompanying comedo; while, on the other hand, cases had also been shown, notably one by Dr. Adamson, of a comedo-like affection, which was really a keratoid nævus. In spite of the fact that a small amount of suppuration was present around some of the comedones, Dr. Whitfield inclined to the belief that the atrophy was the primary, and probably congenital, lesion, and that the comedo-like bodies were merely irregular cornification. The chief objection to this view seemed to be that the process appeared to be beginning also on the back of the head, but this might be really a slighter degree of the affection, and not the initial stage of the severer type.

Dr. **Dore** said members were familiar with the multiple comedones of children, which were thought by Radcliffe-Crocker to be due to wearing dirty caps. There was another group in which comedones and inflammatory acneiform lesions were caused by rubbing in camphorated oil or other greasy preparations, and he asked if the lesions in the present case could be due to a similar cause.

Dr. **Eddowes** suggested that the lesions might be due to infection by instruments at birth.

Dr. **Whitfield** replied that though Dr. Dore's suggestion was an alternative diagnosis, he did not think it likely in this case. The condition was noticed almost immediately after birth. The skin was whitish and of altered texture, suggesting atrophy.

CURRENT LITERATURE.

A NOTE ON THE PIGMENTED TYPES OF URTICARIA. Kerl.

(*Archiv f. Derm. u. Syph.*, cxviii, No. 1, September, 1913.)

As a sequel to a detailed description of two cases of Urticaria pigmentosa, the one typical in both clinical and histological appearances in an infant, aged 6 months, and the other atypical from both points of view, in a young man, aged

22 years, the author discusses the various intermediate types of this disease at considerable length, and concludes that there is no sharp line of demarcation to be drawn either by the clinician or the histologist, and that the name given to the syndrome of pigmentation and urticarial reaction is useful only from the point of view of the nomenclature of a type.

He suggests the adoption of qualifying adjectives according to the sub-type present, *e. g.* Urticaria pigmentosa infantum, Urticaria pigmentosa adultorum, Urticaria chronica c̄ pigmentatione, Urticaria with secondary pigmentation.

He proposes to include occasionally in these groups, Urticaria perstans, and irritating urticarias produced by external agencies.

H. C. S.

THE PATHOLOGY OF GENERALISED EXFOLIATIVE DERMATITIS. SACHS. (*Archiv f. Derm. u. Syph.*, cxviii, No. 1, September, 1913.)

THIS is a lengthy attempt by the author to place his case of generalised chronic exfoliative dermatitis with a two years' history, and with a post-mortem discovery of tuberculous adenitis, midway between those classed by Ehrmann, Wolters, Wechselmann and others as generalised erythrodermia with lymphatic hyperplasia on a pseudo-leukæmic basis, and those cases of general erythrodermia with tuberculous lesions both in the glands and in the skin itself. The latter class have been described by Brunsgard and Fiocco. He holds that the glandular involvement is the primary focus, but that the pathological changes in both gland and skin may then proceed *pari passu* or preponderate in turn. The changes in the skin may commence as urticaria, or a pruritus, an erythema, or a circumscribed dermatitis, any of which may in the course of weeks and months ultimately lead to a generalised erythrodermia. Such a conception explains, in his opinion, the variegated clinical pictures met with, which, in the long run, and after many remissions and recurrences, usually end with a hopeless cachexia and death.

Jadassohn's observation that tuberculosis is a very common complication or sequel to exfoliative erythrodermia is now classical, and has a large literature (quoted by the author) in its support, but there are many authorities still opposed to the classification of the condition under the presumptive toxi-tuberculides.

H. C. S.

EXPERIMENTAL INJECTIONS OF ORGANIC ANTIMONY PREPARATIONS IN DISEASES DUE TO SPIROCHÆTE AND TRYPANOSOME INFECTIONS. HÜGEL. (*Archiv f. Derm. u. Syph.*, cxviii, No. 1, September, 1913.)

THE author, who has recorded some very detailed and carefully tabulated experiments, is not very optimistic with regard to the action of the two or three antimony compounds he injected in a few cases of human syphilis. These preparations had a close chemical resemblance to salvarsan, with replacement of the As. by Sb. On the other hand, it would seem that with some other antimony preparations, of which he does not give the formulæ, fowl spirillosis, and experimental rabbit syphilis were very favourably influenced, so that he considers his researches in this direction well worth a continued application.

H. C. S.

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MARCH, 1914.

DERMATITIS PAPILLARIS CAPILLITII (KAPOSI); ACNE KELOID.

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Acne keloid is a disease of considerable interest both clinically and from the pathological side. Its name, Acne keloid, implies that it is an acne upon which keloid has developed, but this explanation of its nature is by no means generally accepted. Nor is the closely allied opinion that it is primarily a staphylococcal folliculitis—a sycosis—which has been followed by an abnormal and keloidal scar-formation agreed to by all observers. Some there are who reject these theories, and believe that its peculiar clinical characters and its striking histological features stamp it as a distinct disease unrelated to acne, to sycosis or to keloid.

Although a somewhat common affection the eruption is one with which all are familiar, if only from the many drawings and photographs that have been published from time to time.

Its main features are as follows:

It is a complaint which, with one or two doubtful exceptions, has been seen only in men. It begins in young adult life, and as it is very obstinate to treatment, it may continue into later years. Those affected are generally in good health, are usually thick-necked, and in many instances are accustomed to wear stiff collars or stiff neckbands. The eruption occurs upon the back of the neck in the form of a raised transverse band at the lower margin of the hairy scalp. The band is usually dusky red in colour, smooth and firm to the touch—in fact, of keloidal aspect and consistence. It is hairless except at its upper margin, which is abrupt, broken into nodules and fringed with hair in tufts, like aigrettes, or the bunches of bristles in a brush. There may be pustules or crusted nodules here and there along the upper border. The lower margin slopes gradually to the normal skin. Usually there are no comedones nor follicular pustules of acne when the patient comes under observation, and there may or may not be a history of acne of the face in youth. Often the patient complains of itching at the site of the eruption.

On microscopical examination of sections the swelling is seen to be made up of masses of cells between fibrous tissue bundles. By modern staining methods these cells are found to be mainly plasma-cells, with a varying amount of giant-cells. The hair-follicles have for the most part disappeared, but in the neighbourhood of those remaining there are found collections of polynuclear leucocytes. It is still uncertain whether these small, perifollicular abscesses are primary or secondary; and even those who look upon the disease as an entity have been unable to decide whether it begins as a folliculitis or not.

Since Morrant Baker demonstrated an example of this complaint at a meeting of the Pathological Society of London in 1882, no great attention has been paid to it in this country, but it has been the subject of considerable discussion among continental observers, and it will be perhaps interesting to relate the main facts of its history.

In 1869, Kaposi published in the *Archiv für Dermatologie* an article "On the so-called Frambœsia and several other kinds of Papillary New Growths of the Skin," in which he gave a detailed account of four examples of an eruption which he named "Dermatitis papillomatosa capillitii" (or Frambœsia non-syphilitica capillitii). The disease had been known in Hebra's clinic, and it is described and pictured in Hebra's *Atlas* (Heft x, taf. 3, fig. 1) under the name "Sycosis frambœsiformis." But Kaposi maintained that the disease was distinct from sycosis both clinically and histologically. He laid stress upon the fact that the earliest lesions were nodules of uniform consistence, and not pustules. He pointed out that the hairs in the affected parts were firmly and deeply set, and that they were extracted with difficulty and without the root-sheath; that some parts were quite bald, and that in others the hair occurred in tufts—they were not, as in true sycosis, set each in a pustulating follicle, and readily epilated with the swollen root-sheath. He also denied that there was any evidence that the affection was syphilitic, or that it had any relation to Acne indurata; and although he described the appearance as keloidal, he made no suggestion that the disease was related to keloid. From his clinical observations and from his microscopical examinations—the results of which were given in detail—he concluded that the disease was a peculiar idiopathic chronic inflammation and connective-tissue new formation in the cutis, with dilatation and increase of the blood-vessels. He found the sweat and sebaceous glands, and, in parts, the hair-follicles, destroyed by the pressure of the cell-infiltration and new connective-tissue growth, but there was no evidence of folliculitis. He believed that the process started in the cutis, and not in the follicles or glands. Later on Kaposi published three more cases, and he gave a short account of the complaint in his work on *Diseases of the Skin.* Coloured drawings of four of his cases are published in his *Atlas.* In subsequent years Kaposi on several occasions during discussions at the Vienna Dermatological Society adhered to his original views, and maintained that the earliest stage is a pin-head-sized indurated papule, and that suppuration, when it occurs, is secondary and accidental. He admitted the possibility of microbic origin, but did not believe it is due to the action of the ordinary pyogenic cocci.

From the publication of Kaposi's cases until Morrant Baker exhibited, under the name of Acne keloid, the first case recognised in this country, there seems to have been no further reference to this disease.

Baker's case was published, with a coloured drawing, in the *Transactions of the Pathological Society of London* in 1882. The description forms a careful and accurate picture of the disease in its earlier stage. It is interesting as being an independent observation, for Baker was not aware of the fact that the complaint had been made the subject of a special observation until afterwards informed by Dr. Liveing, who had seen an example, and told him that Dr. Verité had mentioned to him a similar case, and that, under the name Acne chléloïdique, the disease had been known to Bazin, who had given a brief description of it in 1852.

In the same year in which Baker published his account of the disease he exhibited his case, together with another under the care of Dr. Sangster, at the International Medical Congress in London. Hebra and Kaposi were present, and recognised these cases as examples of the disease described by Kaposi under the name Dermatitis papillomatosa capillitii.

Cases were subsequently reported by Hyde of Chicago (1883), by Marcassi in Italy (1887), by Hartigen (1887) and by Dyer and Hertzman in America (1889), and by Eve in London (1889). In 1889 Dubreuilh published an important monograph, and Leloir and Vidal described the disease in their *Atlas* in the same year. Since then numerous cases have been reported, and several monographs and articles on the disease have appeared, among the most important being those by Melle (1891), Ullmann, Mibelli (1893), Ehrmann, Zedermann (1896), Secchi (1897), FitzPorges (1889), Max Joseph (*Atlas*), Gussmann (1906), Stancanelli, Shauer, Lipschültz (1910), Pautrier and Gouin (1911), and Schmidt and Wagner (1912).

All observers are agreed as to the clinical features of this disease in its later stages, and also, in the main, in regard to the histological findings, but there is considerable difference of opinion about the early stages of the disease. Some regard it as ordinary acne or sycosis, others think it may begin as a folliculitis distinct from acne and sycosis, and others believe the primary lesion to be a papule unconnected with the follicle. The interpretation of the histological findings is also disputed. All have described a cell-infiltration passing on to fibrous tissue formation, and most observers have noted inflammatory changes around the hair-follicles; the later investigations have shown that the cell-infiltration consists mainly of plasma-cells, with some mast-cells or giant-cells. Small collections of polynuclear leucocytes (*i. e.* small abscesses) are also found in the neighbourhood of the hair-follicles, but there is no general agreement as to the origin of these changes. Ehrmann and Sabouraud appear to support the older view of Hebra that the disease is essentially a sycosis of staphylococcic origin, with later chronic inflammatory changes. Many French and Italian writers hold that it is a form of Acne vulgaris, notably Besnier, Brocq, Dubreuilh and Leloir. Unna, Scheuer, Schmidt and Wagner, Pautrier and Gouin regard it as primarily a folliculitis, but hesitate to incriminate the ordinary staphylococcus. Kaposi, Gusmann, Ledermann and Max Joseph describe the cell-infiltration as beginning in the upper part of the corium around the blood-vessels, and independently of the follicles, so that they do not think it to be a follicular infection.

Various micro-organisms, and cell-changes simulating micro-organisms, have been demonstrated in the lesions by different observers. Marcassi found micrococci in zooglœa masses; Dubreuilh, micrococci; Spregler, cladothrix; Secchi and Sanfelici, blastomycosis; Schmidt and Wagner, more recently, masses of micrococci; and Ledermann and others, Russel's bodies or hyaline bodies.

In respect to its "keloidal" character Unna says: "Neck keloid is a tumour consisting mainly of connective tissue; it is not a simple combination of true acne with keloid, as is shown by the rare, quite different and well-known cases of keloid developing in other parts of the body from true acne nodules; the tumour would then certainly appear on the sternum where both acne and keloid are frequently present, and not only on the back of the neck. It has as little to do with acne as with keloid, but is a peculiar, probably infectious folliculitis, localised in the neck, which leads to the development of a fibroma of keloid character." Most writers now agree with this view that it is "keloidal," but not a true keloid.

While referring to the histology of this affection, mention must be made of the coloured drawing of a section showing plasma-cell infiltration in Max Joseph's *Atlas*, and of the remarkable series of drawings of sections in the paper by Pautrier and Gonin.

Personal Cases.

The following four cases of acne keloid have come under my care during the past twelve months. Two of these represent an early stage of the disease, two the later stage. Microscopical examinations were made in three cases.

CASE 1.—The case here illustrated (Fig. 1) is a typical example of the more advanced stage. The patient, A. R—, was a farmer, aged 55 years. He had been troubled with the eruption on the neck for more than twenty years. He was a sturdily built man in robust health. On the back of the neck, just below the junction of the hairy scalp with the smooth skin, there was a raised transverse band three inches long by half an inch wide. Its surface was smooth, shining and red. At its lower margin it sloped gradually to the normal skin. At its upper border it was embossed by rounded nodules and fringed by hair in tufts or "aigrettes," with here and there some crusting. The whole appearance was keloidal or that of an hypertrophied scar. At either extremity of the transverse band there were outlying similar but somewhat smaller swellings. There were also several isolated hemp-seed-sized red rounded nodules. There was no appearance of suppurative folliculitis. There was no acneiform plugging of the follicles, and there were no scars such as are left by long-standing sycosiform furunculosis or by Acne indurata. The hairs were tightly held in the growth and came away on firm traction without bringing the root-sheath. Some itching was complained of. No history of acne at an earlier age could be obtained nor of "boils" upon the neck. A portion of the growth was removed for microscopical examination. On cutting into the growth it felt firm and almost gristly and it bled freely.

Treatment by X-rays has produced slow improvement.

Case 2.—The second case (Fig. 2) is of interest because it represents an earlier stage of this disease. The patient, H—, a journalist, aged 30 years, well-built and thick-necked, had been troubled with the eruption for six or seven years. He had never had acne, nor boils on the neck, and there were no comedones, no pustules, and no scars as evidence of acneiform pustulation (Acne indurata) on the neck or face. The eruption extended transversely across the back of the neck over an area which reached from just above the junction of the hairy scalp with the smooth skin downwards for about two inches, and laterally from one side of the neck to the other. Over this area were from sixty to seventy red, raised, hemispherical nodules, varying in size from that of a pin's head up to that of a split-pea, and in parts welded together to form embossed nodes of the size of a threepenny-piece. The nodules were firm, but there was no deep-seated induration. Hairs projected through the lesions without any special arrangement at the centre of the papules. Through the larger nodules there projected tufts or bundles of hairs, generally towards their margin. On incision of the nodes only blood escaped, and they cut with the firmness of scar-tissue. On scraping with a sharp spoon they were found not to be friable—in fact they could not be scraped away.

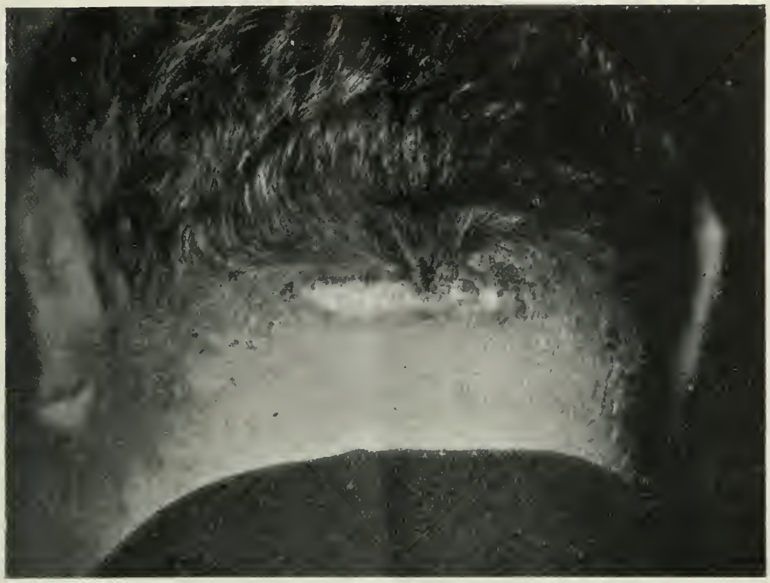

FIG. 1.—Case 1.

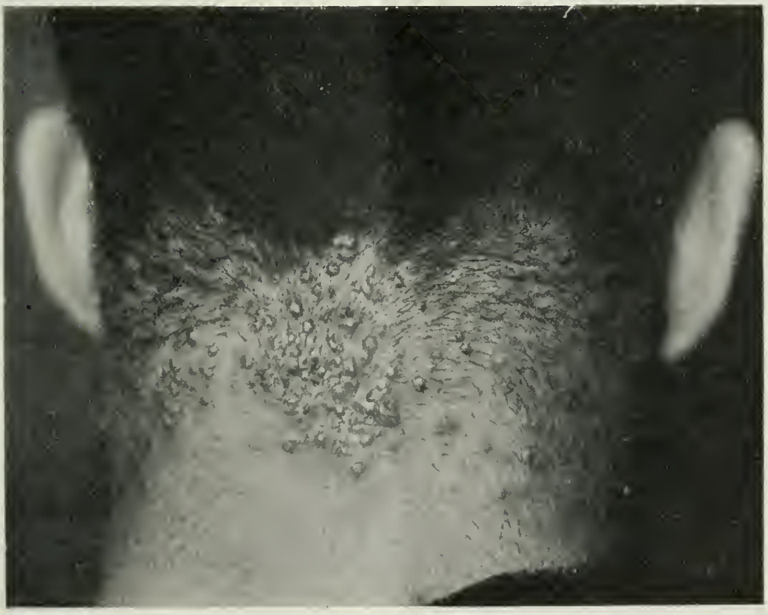

FIG. 2.—Case 2.

ILLUSTRATING DR. H. G. ADAMSON'S ARTICLE ON DERMATITIS PAPILLARIS CAPILLITII (KAPOSI); ACNE KELOID.

Several large and small nodules were excised for microscopical examination.

CASE 3.—Albert F—, a man, aged 50 years, was attending for psoriasis of the palms, and complained also of "blind boils" on the neck. At the upper level of the collar there were seen four small raised, red, rounded papules of very firm consistence. Only the larger of the four had a central crust. There were two or three hairs protruding through each papule, but they were not centrally arranged. The nodules were recognised as an early stage of "Acne keloid." There were no lesions suggestive of "blind boils." There was no Acne vulgaris on the face or elsewhere and no follicular pustules. One nodule was excised for microscopical examination.

CASE 4.—Arthur R—, aged 29 years, was first seen on December 11th, 1913. This patient was a farmer and the son of R— (Case 1). He was thick-necked. He had had acne on the face since 16 years of age and still presented many papulo-pustular lesions on the forehead and cheeks, but no comedones. None of the papules were keloidal. At the upper collar-margin on the neck there was typical "keloidal acne." On the left side there was a large group of raised, very hard, dusky-red nodules. To the right of the middle line there was a raised flat keloidal band, and there were many isolated nodules. Many of the nodules in this case were crusted at their apex, and on removal of the crust, or on puncture, a few drops of pus escaped. The experiment was made in this case of treating some of the nodules by means of caustic potash. The application of a 1 in 4 solution removed the superficial red skin and exposed a rounded, very hard, white, gristle-like nodule, upon which the caustic potash made no impression. This contrasted markedly with the effect of caustic potash solution upon the nodules of Lupus, which are easily softened and destroyed by this agent. Further treatment was carried out by X-rays, with marked improvement to the present time.

None of these cases presented any lesions suggestive of chronic Acne vulgaris or of sycosis. There were no comedones, no papulo-pustules, no deep-seated indurated and pus-containing nodules such as are found in cases of chronic acne or furunculosis of the neck, and no scars from former furuncles or acne nodules. The earliest lesions observed were pin-head-sized raised, rounded, firm superficial nodules without central crusting or pustulation, and crusting and pustulation were found only in the later lesions. These clinical appearances tend to support the view of Kaposi that the earliest lesion is a small indurated papule and that suppuration is secondary and accidental.

Histology.

Sections were examined from small nodules in Cases 2 and 3 and from the large keloidal mass in Case 1 (Figs. 3, 4, 5, 6).

There is found in all a plasma-cell infiltration culminating in a dense fibrous tissue deposit, and small collections of polynuclear leucocytes in the neighbourhood of the few remaining hair-follicles.

The central parts of the lesions are made up of densely packed young connective-tissue cells with here and there collections of plasma-cells. In the older lesions the connective tissue predominated, in the younger lesions the plasma-cells. Outside the main body of the lesion there are strands of plasma-cells around dilated blood-vessels. In serial sections hair-follicles are found only sparsely. Around the few remaining hair-follicles are large masses of plasma-cells with giant-cells; and, generally, in the follicle itself or in the midst of the plasma- and giant-cell infiltration and close to the hair-follicle there are small collections of polynuclear leucocytes (small abscesses). In some instances the follicle is partially destroyed and its site occupied by a small abscess.

From a careful study of these sections the sequence of events appears to be as follows:

(1) Dilatation of the blood-vesssls with deposit of plasma-cells immediately around the vessels.

(2) Transition of plasma-cells into connective-tissue cells and young connective-tissue fibres. In other words, the "reaction" is mainly a fibrous-tissue cell reaction, the plasma-cell infiltration representing, in the writer's opinion, a stage towards fibrous tissue deposit. The lesions have no resemblance to those of true keloid, and the dense plasma-cell infiltration with subsequent "sclerosis" is strongly reminiscent of the plasmoma with sclerosis of a primary syphilitic sore.

The polynuclear leucocytic infiltrations appear to be a secondary occurrence and considerably later than the plasmoma. They are obviously formed in the already existing plasma and giant-cell

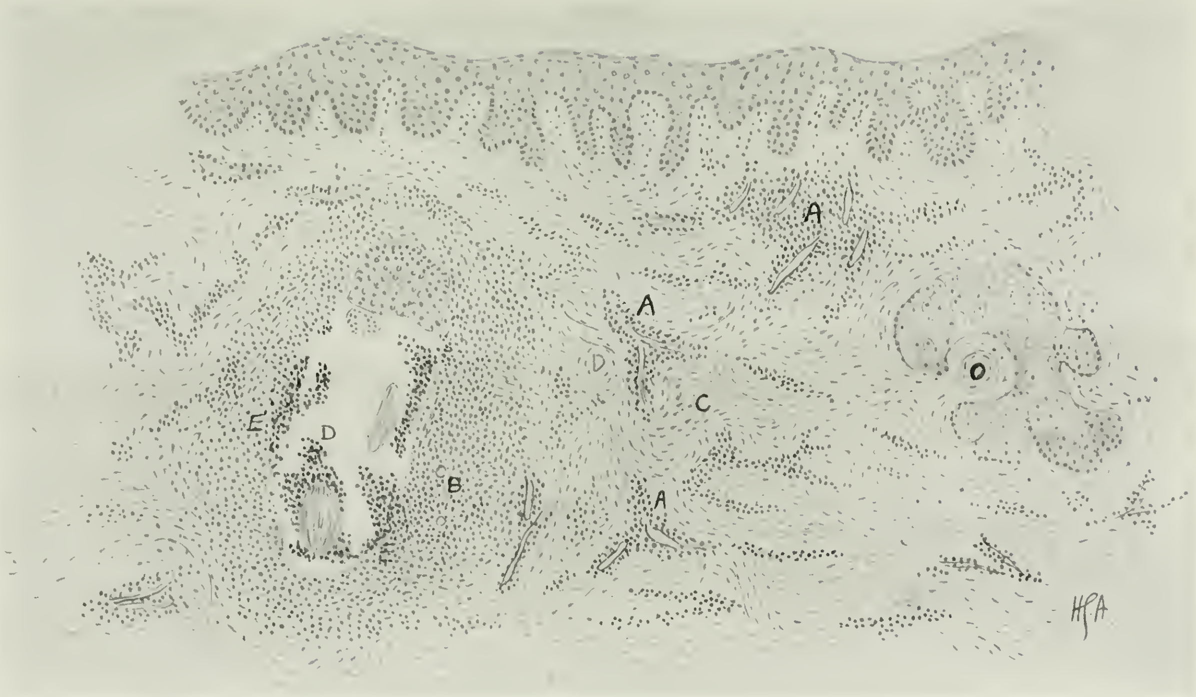

Fig. 3.—A. A. A. Collection of plasma-cells and "epithelioid" cells round a dilated blood-vessel. B. Giant-cell. C. New connective tissue. D. Collection of polynuclear leucocytes in remains of a hair-follicle and invading the plasma-cell infiltration at E. E.

ILLUSTRATING DR. H G ADAMSON'S ARTICLE ON DERMATITIS PAPILLARIS CAPILLITII (KAPOSI); ACNE KELOID.

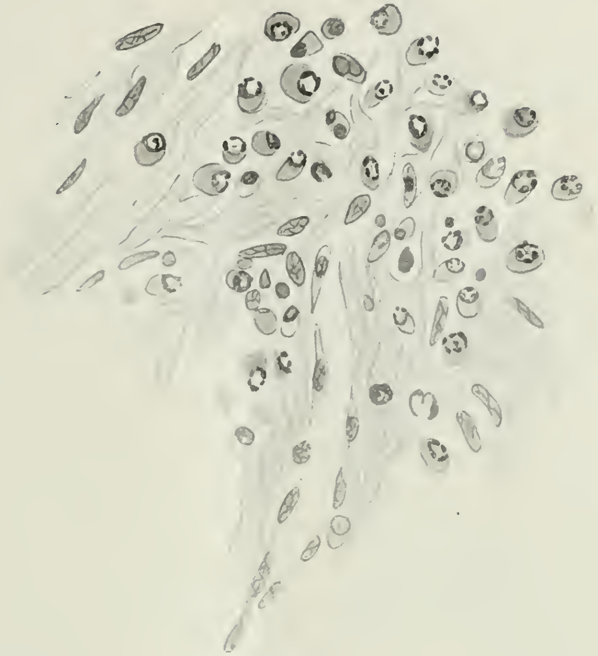

FIG. 4.—Dilated blood-vessel, plasma-cells and "epithelioid" cells. This drawing represents the mass marked A in Fig. 3 under a higher magnifying power.

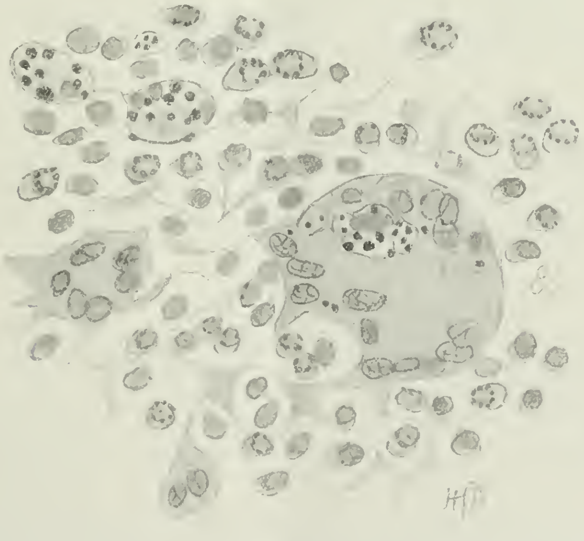

FIG. 5.—Area B in Fig. 3 under high power. Shows giant-cells and masses of darkly stained bodies both in the larger giant-cell and outside (E. E.). These are probably the bodies which have been described as blastomycetes and are possibly disintegrated polynuclear leucocytes.

ILLUSTRATING DR. H. G. ADAMSON'S ARTICLE ON DERMATITIS PAPILLARIS CAPILLITII (KAPOSI): ACNE KELOID.

infiltration, which is seen to be broken up and invaded by the pus-cells. They are perhaps analogous to the secondary pustulation which occurs in a lupus nodule or in a tuberculide when this breaks through the epidermis.

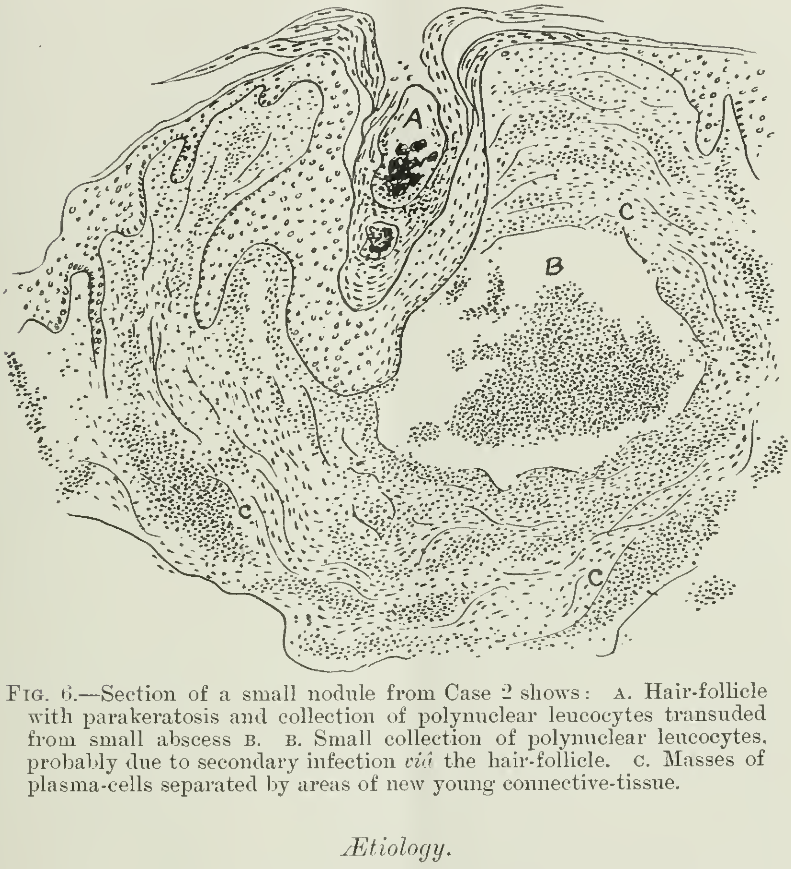

FIG. 6.—Section of a small nodule from Case 2 shows: A. Hair-follicle with parakeratosis and collection of polynuclear leucocytes transuded from small abscess B. B. Small collection of polynuclear leucocytes, probably due to secondary infection *viâ* the hair-follicle. C. Masses of plasma-cells separated by areas of new young connective-tissue.

Ætiology.

These findings tend to support the early view of Kaposi that the disease is a chronic inflammation and connective-tissue new formation leading by pressure to atrophy of the hair-follicles, sebaceous and sweat-glands, possibly of microbic origin, but not a reaction to ordinary pus cocci.

The most striking known ætiological factor is friction by the collar edge. A combined microbic and traumatic origin seems probable. Microbic infection may or may not be through the follicles, but it is probably neither the Acne bacillus nor *Staphylococcus pyogenes* which is responsible, and the disease is unrelated to acne or sycosis. Neither is it a true keloid.

Treatment.

A notable feature of the disease is its obstinacy to treatment. Most success is obtained with the X-rays, but repeated and large doses are required to produce any impression upon lesions of long standing, so that it is necessary to shield the normal skin when applying the rays to the keloidal swelling. In early cases small isolated nodules may be excised, and they do not recur if the incision is free of the sharply circumscribed sclerotic mass which constitutes the nodule.

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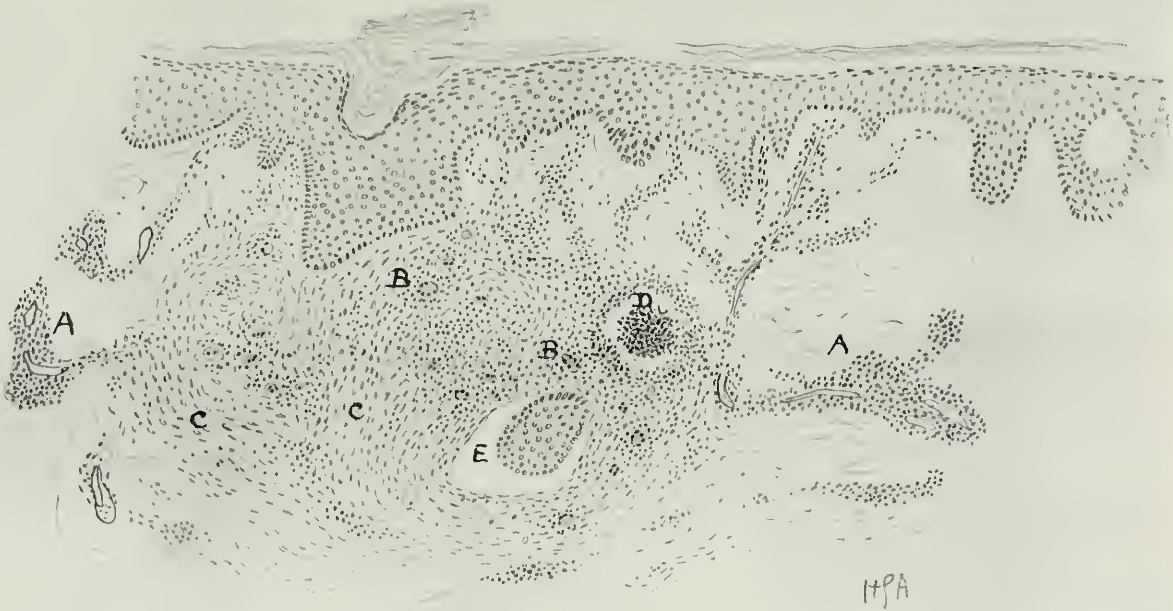

FIG. 7.—Section through early nodule from Case 3. A. Masses of plasma-cells round dilated blood-vessels. B. Giant-cells. C. Dense fibrous tissue deposit. D. Small abscess (polynuclear leucocytes). E. Remains of hair-follicle. (The section from which this drawing is made was kindly prepared by Mr. R. G. Canti in the Pathological Laboratory, St. Bartholomew's Hospital.)

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ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on February 19th, 1914, Dr. J. H. Stowers, Vice-President of the Section, in the Chair.

Dr. E. G. Graham Little showed a case of *congenital milium in a male infant, aged 3 months.* The condition as seen had been noted at birth and had increased since then. At the present time the patient had a very copious eruption on the face, especially on the chin, where the whole surface was closely studded with the characteristic small white tumours. In the axillæ and on the chest and back and scalp there were many hundreds of the lesions. The mother had no milium, and this was the only child affected. The exhibitor had to thank Dr. Seymour Lloyd, of Luton, for the case.

Dr. Graham Little also showed a *case for diagnosis.* This was probably a case of sclerodermia in a lady sent to the exhibitor by his colleague, Mr. Edmund Owen, with a curious history. She had been seen fifteen years ago, shortly after the first appearance of the disease, by Mr. Jonathan Hutchinson (as he then was), and by Dr. Payne.

The former had pronounced the case to be "lardaceous disease" of the skin, whatever that might be. Dr. Payne had called it "papyrus skin," and the patient had been painted for an atlas. At the present time she had on each shoulder at the upward slope of the neck and on the neck itself a large patch about 2½ in. by 2 in. of atrophied, wrinkled, and slightly reddened skin, with no shiny surface as in sclerodermia, but on the contrary with a surface like crinkled tissue paper. This patch had been "white like a blister": lower down on the back, at the level of the spines of the scapulæ, there were two groups of depressed pea-sized scars, one on each side, with a striking resemblance to the scars and grouping of Herpes zoster. These had originated in exactly the same way as the lesions on the upper part of the shoulder. There was occasionally slight itching of the parts affected, but no other subjective sensations were complained of. The patient was now aged 65 years, and otherwise in excellent health. She had had no treatment other than local ointments for relief of itching.

Dr. Graham Little showed a case of *favus of the glabrous skin of the right side of the neck in a girl,* aged 11 years. The patient was one of a family of three children living together in a mews, the father being a carman. The disease had shown itself about a month ago and had been seen then with a very small, slightly scaly patch which had been thought at first sight to be a tinea, but the demonstration of the characteristic fungus of favus had established the diagnosis. The patch was left untreated for a week, and the child had then come up with a typical yellow scutulum in the middle of the scaly patch. At this stage she had been shown to the Harveian Society at its meeting at St. Mary's Hospital. Pure cultures from the scutulum were grown on Sabouraud's proof medium, and gave the typical aspect of *Achorion quinckeanum.* The cultures grew very rapidly at a temperature of 32° C., and the thick white cotton-wool-like growth was unmistakably that of the *Achorion quinckeanum.* It was notable that at the temperature of a sitting-room, in which was kept another Sabouraud tube, sown with the same fungus at the same time, the growth was totally different, being a slimy grey-white patch, which, however, gave characteristic spores but no mycelium.

Achorion quienckeanum had hitherto been identified as a mouse-favus, and the possible source of the infection was closely investigated. The child had been kept at home on account of a sore throat for about two weeks before the first appearance of the patch. The infection was therefore probably derived from the home. Here there were seven canaries and two cats sharing the domicile. The canaries, being a source of profit, were carefully tended, and the affected child handled the birds at different times. The cats, when not at large in the stables below, were chiefly confined to a large coal-box in which mice were thought to be present, but the rooms were not at any time over-run by these. The canaries were inspected by the exhibitor, and the feathers from one bird, which was moulting, were examined microscopically, with a negative result. The cats had now been removed, and in their absence an attempt would be made to catch some mice and investigate this possible source of the contagion. Neither of the other children, who were both younger than this patient, showed the disease, and there was no affection of the scalp in this patient.

Dr. SEQUEIRA said he saw very few favus cases now in East London.

Dr. MACLEOD said that some little time ago he had shown to the Section a case of favus of much the same type and grew from it the quinckeanum fungus. He had seen the case in much the same phase as in this one, and also in an earlier stage in which small pin-head-sized scutula were present.

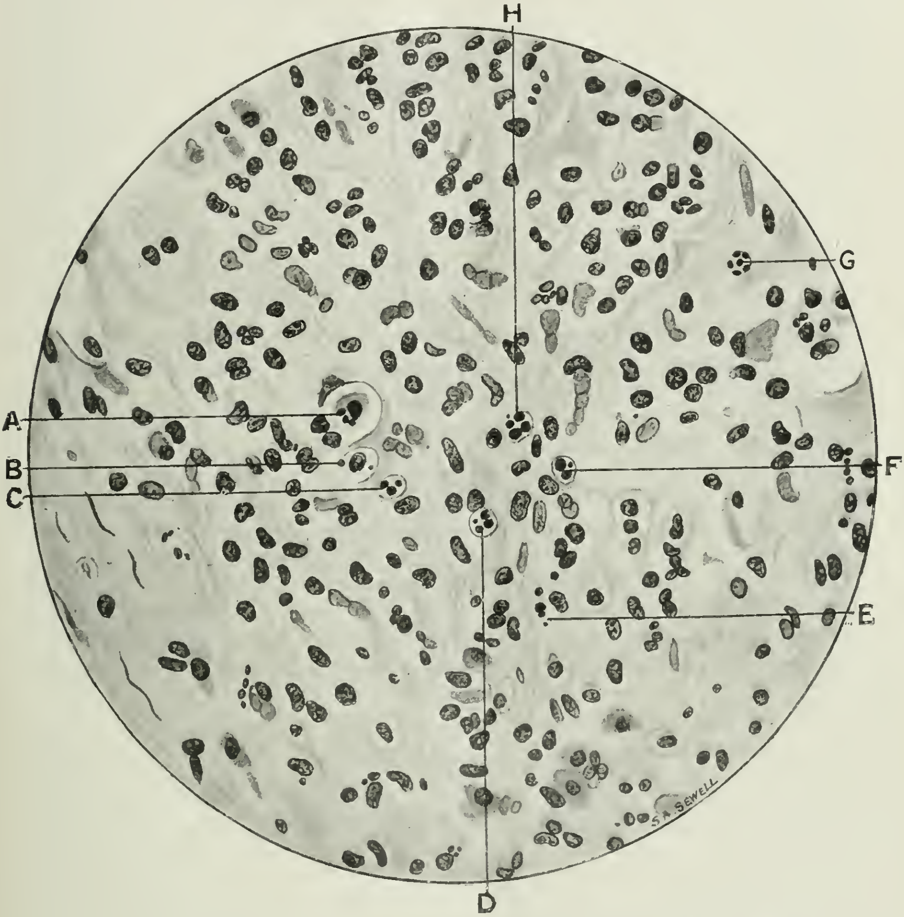
Mr. J. E. R. MCDONAGH showed *an unusual case of syphilis.* The patient, a man, aged 41 years, came up for consultation in October, 1913, complaining of a rash on the penis. Nineteen years ago the patient had a sore on the skin of the penis. The sore appeared some weeks after connection, remained single, was about the size of a sixpenny-piece, the ulceration was superficial, the sore did not increase in dimensions, there was little or no discharge from it, and it took some months to heal. A medical man was consulted at the time, who ordered local treatment only, and, as far as can be ascertained, no diagnosis was made. The sore was not followed by swelling in the groin and no other symptoms appeared until early in 1913. In the meantime the patient had always enjoyed the best of health, except for occasional attacks of dyspepsia, which still troubled him.

The patient had spent some time in West Africa, but the sore appeared in England before he had visited the Tropics. Patient was married, but had had no children, and his wife had never been pregnant.

The rash for which the patient sought advice was a ringed eruption in the circumference of the original sore, and a smaller similar lesion which appeared later, below, and somewhat to the outer side, but quite separate from the first lesion. There was a scar where the original sore had been, around which was a raised ring made up of almost discrete papules. Some of the papules appeared to have a little pus in them, but no matter came away upon puncturing them. Other papsules were covered by a small hard crust, which when removed showed a scar, but no ulceration. The lesion below was similar, and with neither was there any surrounding inflammation.

The exhibitor had no doubt in his own mind but that the lesions were syphilitic and that the original sore was a primary chancre. The patient had never shown any other symptoms of syphilis; he had never taken any treatment, and on a thorough examination no other signs of syphilis were revealed. The Wassermann reaction was slightly positive (+). The patient then received four weekly intravenous injections of neo-salvarsan, some intra-muscular injections of mercury and potassium iodide internally; local applications of ung. hydrarg. and ung. iodex were also prescribed. In spite of all this treatment the lesions are very much the same to-day as when they were first seen, and the Wassermann reaction remains indefinite (− +).

Clinically the condition was unlike anything else except syphilis, but as it was odd that antisyphilitic treatment had proved unavailing, a portion was removed for microscopic examination. Several sections were cut and stained. In all the bulk of the cellular infiltration was limited to the corium, and any inflammation in the subdermic tissue was in and around the walls of the blood-vessels. The cellular infiltration was mainly composed of lymphocytes and plasma-cells. In some sections the cellular infiltration was grouped into small areas, which were surrounded by connective tissue. In some areas several giant-cells were to be seen which might have suggested a tuberculous lesion, but in other areas necrosis had taken place, leaving behind an amorphous mass which stained badly, suggestive of either caseation or, more probably, a gumma. Any vessels visible showed marked cellular infiltration, both in their walls and in the perivascular tissue. In other sections the cellular infiltration was diffuse, there were more plasma-cells, no giant-cells were visible, and the various phases of the *Leucocytozoon syphilidis* were clearly discernible. The peculiar features about the phases were the entire absence of any male and female bodies and the preponderance of intra-cellular and extra-cellular developing spores.



A. Development of Trophozoite in connective-tissue cell. Note degenerated nucleus of connective-tissue cell above and to the left. B, C, D, F, H. Sporoblastic development. Note D, F, H, the tiny body which is probably a blepharoplast which has remained behind, suggesting a parthenogenetic development. E. Sporoblast and sporozoite. G. Spore-cyst.

Against the view that the gametal forms had been destroyed by the treatment was the fact that the lesions had remained unaltered in spite thereof. The suggestion arose that the case was an aberrant form of syphilis in which only the spores had been able to develop asexually. In favour of the suggestion were the following points: (*a*) The chronicity of the lesions; (*b*) the extreme localisation with no ascertainable evidence of there ever having been a generalised infection; (*c*) the weak positive Wassermann reaction; (*d*) the inability of treatment to cure the lesions. Clinically the case was of extreme interest and likewise the histological appearances. Unless one had been able to find the syphilitic parasite it would have been impossible to diagnose the condition from any other form of granuloma. Another point of interest in the case was that the wound resulting from the biopsy healed by first intention, while the site of the original sore broke down and ulcerated again. The ulceration healed in three weeks. The tendency for sites of primary sores to break down years afterwards as a result of trauma was very characteristic.

Finally, it might be stated that the parasitic bodies gave the same micro-chemical and physical tests as the exhibitor had described elsewhere.*

Dr. SEMON thought this would be a very good case on which to try the luetin reaction, if the Wassermann reaction was doubtful.

Dr. WHITFIELD asked if the tuberculin reaction had been tried on the patient; or if guinea-pig inoculation had been done. It might be tubercle, and there was no evidence that it was syphilis, except the doubtful Wassermann reaction.

Dr. HALDIN DAVIS thought it would be interesting to try the effect of the luetin reaction, in view of the need for more evidence that the condition was syphilitic. At present the diagnosis had to rest on a doubtful reaction and upon microscopic specimens, which might carry conviction to some minds, but not to others.

Dr. H. G. ADAMSON showed photographs and drawings illustrating a family series of cases of *Epithelioma adenoides cysticum of Brooke* (*Tricho-epithelioma papulosum multiplex of Jarisch*). Four cases had been seen—mother, two sons and daughter, and the mother had mentioned two others—her mother and a maternal aunt. These cases were of great interest on account of their close resemblances with multiple rodent ulcer, in the distribution and appearance of the lesions, and in their histology. A further interest was the fact that the two sons presented large tumours on the scalp such as had been described as "*multiple endotheliomata,*" but which were now known to be basal-cell epithelioma. These cases will be reported in full in a later number of the Journal.

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* *Biochemical Journal*, 1913, vii, No. 5.

Dr. A. Eddowes mentioned a case which he showed many years ago, with drawings, at the British Medical Association meeting in Oxford. He had shown the drawings on several occasions since. In his sections he fortunately got staining of the contents of the cystic tubules, which showed a very large number of organisms which were all similar, and had the appearance of minute bacilli in chains, or a small streptococcus. He suggested that every attempt should be made to get cultures from the present cases. Possibly we had here a special organism which had not yet been studied. He believed that the lesions were infective. The patient shown at Oxford had to leave for India, but before he left he removed nearly all the nodules, and there was no recurrence while the patient remained in England. He had since lost sight of the man, whom he advised to see a surgeon on arrival in the East and have the condition watched, because if neglected a fungating process might be set up, or ulceration similar to that of rodent ulcer.

Dr. MacLeod asked if it were Dr. Adamson's idea that rodent ulcer was invariably a tricho-epithelioma.

Dr. Whitfield said that the diagrams which Dr. Adamson had shown were so striking that one could not neglect the similarity of site between tricho-epithelioma and rodent ulcer. He thought, however, that Dr. Adamson's explanation of the growth of tricho-epithelioma and rodent ulcer respectively was not entirely satisfactory. It was true that rodent ulcer did not often form a good tumour, but this was because it broke down into an ulcer. Actually rodent ulcer made a larger amount of new tissue than did tricho-epithelioma. One could hardly say that tricho-epithelioma was a more robustly growing tumour than rodent ulcer, since the latter seemed the more powerful both as regards producing a greater amount of new growth and invading the tissues of the host.

Dr. Sequeira regarded the communication as very interesting, and especially the suggestion of Dr. Adamson that the rodent ulcer was derived from the rudimentary hair-follicle. In the important debate on rodent ulcer at the Pathological Society in 1894,* Sir Frederick Eve and others placed the origin of rodent ulcer in the hair-follicle. Dubreuilh and Auché also traced the origin in many cases to the pilo-sebaceous follicle. The point raised by Dr. Whitfield he regarded as a good one, because the tumours on the scalp were composed of masses of fairly innocent growth, and were distinct from the growth met with in the case of rodent ulcer when attacking the scalp. Rodent ulcer on the scalp was usually of the superficial cicatrising type; it did not produce large growths or deep infiltrations. Dr. Adamson's suggestion that multiple rodents may start from congenital anomalies was very important. The speaker had been interested in the origin of many rodent ulcers in early life, and had reported several cases. Recently he saw a case in which the rodent ulcer began as a growth which was described as being a bluish "pimple" at the age of 11 years; the patient was now only aged 20 years, and for the last four years he had had a typical rodent ulcer. The old idea that rodent ulcer was always a growth of old age must be abandoned. The early cases were usually diagnosed as lupus.

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* *Trans. Path. Soc.*, xlv.

Dr. H. G. Adamson showed a case of *generalised lentiginous pigmentation in an adult ; (?) adult Urticaria pigmentosa.* A. B—, aged 44 years, had noticed the eruption gradually increasing during five years. Everywhere on the skin, except of the face and of the palms and soles, there were freckle-like pigment stains, of a dark red-brown colour, profuse and closely set on the limbs and trunk and sparse upon the backs of hands and feet. The patient had stated that the skin itched after meals and that there appeared clusters of wheals, on the legs especially, but also on the arms. In her own words, " white blisters puff up in bunches after eating or drinking." There was no factitious urticaria, but the exhibitor thought that the macules on the arms could be made to swell slightly on friction, though this swelling was not very obvious. A microscopical section of a macule showed only some increase of pigment-granules in the lower layers of the epidermis and a very slight round-cell infiltration around the blood-vessels in the corium, with a few mast-cells, but not more than in any inflammatory cell exudation.

The case recalled one of a similar nature, in a medical man, shown by Dr. Douglas Heath at a previous meeting of the Section.* The exhibitor had five other closely similar cases, one in a young man, aged 22 years, and four in women, aged 28, 44, 50, and 52 years. The duration of the eruption when seen had varied from one and a half to five years. In all cases there had been a profuse eruption of dark red-brown freckle-like macules, chiefly upon the arms and legs, and, generally, also upon the trunk, but never upon the face and neck and sparsely or not at all upon the hands and feet. The red colour of the macules faded on pressure, leaving a pale brown stain. In one case only was there a distinct urticarial swelling of the macules on friction. In the remaining cases it was slight, doubtful, or absent. In four cases pruritus was complained of, and there were occasional urticarial attacks apparently independent of the macules. There was never factitious urticaria or dermographism. In one female case there was a trace of sugar in the urine. Two cases had been diagnosed as syphilitic eruptions, and one patient, the young man, had been rejected as a candidate for a post in a Government office on that account.

The exhibitor asked whether these cases were to be regarded as adult Urticaria pigmentosa, or, as Dr. Whitfield had suggested when Dr. Douglas Heath's case was shown, as a distinct disease.

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* *Brit. Journ. Derm.*, November 20th, 1913; December, 1913, p. 410.

Dr. Graham Little had pointed out in his monograph on "Urticaria Pigmentosa" that records of the disease beginning in adult life were more numerous than generally supposed. He gave a list of twenty-two published cases in which onset had taken place after puberty.* Many of these seemed undoubted examples of Urticaria pigmentosa.

Dr. **Whitfield** considered this a case of an unnamed disease distinct from Urticaria pigmentosa. He remembered a case under his care which he had failed to diagnose. This case went on to someone else, and was subsequently shown with the diagnosis of Urticaria pigmentosa. The patient then returned to Dr. Whitfield and a biopsy was made, but the tissue showed nothing characteristic. He asked if anyone knew of a case of well-marked Urticaria pigmentosa in which the excised lesion did not show any of the characteristic mast-cell infiltration.

Dr. **Adamson** replied that all these cases were diagnosed as secondary syphilis at some time or another. Sometimes there was a history of four to five years' duration.

Dr. J. A. **Nixon** showed a *case for diagnosis*. The patient is a female, aged 31 years, single, who has been engaged as a nurse at various asylums and workhouse infirmaries for eight years. Nearly four years ago she noticed some irritation over the sacrum, and discovered a large discoloured patch of skin which was about 14 in. in diameter. The skin was of a reddish-brown tint, gradually growing browner, and the area spread slowly at its margins. She does not know when the second or upper patch first started. Her health has always been excellent; she is not aware of any injury or abrasion at the onset of this disease. She has a moderately enlarged thyroid gland, without any symptoms of Graves's disease, but her sister has suffered from this complaint. She complains at the present time of persistent sciatica in the right leg, for which no cause can be found. The lesions consist of (*a*) a large slightly depressed area, roughly circular in outline, occupying the centre of the back; extending above from the level of the angles of the scapulæ to the mid-lumbar region below and laterally almost to the flanks. This area is of a dull reddish-brown colour, the texture of the skin is scarcely altered, the margins are irregular, and there are outlying small islands of affected skin. In the centre of this area is a small patch of (*b*) white scar tissue, showing the superficial trabeculation of keloid. (*c*) Situated over the sacrum there is a transverse patch of a similar character to (*a*), extending laterally to the middle of each iliac crest and of about 4 in. in depth from above downwards. In this area there is no scarring or change of texture in the skin, but the colour is altered to a paler and more parchment-like tint, and many dilated venules are present. On the lower abdomen and on the hips are small brownish-red macules ½ in. to 1 in. in diameter; these are neither depressed nor infiltrated, and they are, according to the patient, the earliest manifestation of the disease. The progress of the lesions seems to be a gradual centrifugal extension of these macules, with eventual depression of the surface of the affected skin and a slight thinning of its texture. The areas become dusky red and present an appearance resembling a slightly nævoid condition. Finally, in some of the areas the centres become white and atrophic, with occasional dilated venules. At no time has any sclerodermic thickening or stiffening of the skin been observed.

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* *Ibid.*, October, 1905.

A portion of the skin was removed for biopsy and reported on as follows by Prof. Walker Hall: "Cultures: *Micrococcus epidermidis* only. Section: The epidermal papillæ are generally atrophic; the stratum granulosum is defective and almost absent; the Malpighian layer shows immature and badly formed cells. The whole epidermis is compressed apparently by a very dense and fibrous dermis. In this dermis there are perivascular and periglandular mononuclear-celled infiltrations. There are not any signs of exudative or granulomatous inflammatory reactions. The arrangement of the cells and of the fibrous tissue suggests some relation to the vascular system." Wassermann reaction negative.

The case appears to be an atypical one. In certain features—the faint reddish-brown pigmentation, the telangiectases, the occasional morphœa-like scar, the spontaneous development, the distribution, and slow spread—the condition resembles *sclerodermia*. In other features—the absence of any stage of induration, infiltration, or want of pliability in the skin—the connection seems to be somewhat nearer to an *idiopathic progressive skin atrophy*, but it is noteworthy that the affected areas are not denuded of hairs, nor is sweating absent. Finally, the formation of a *keloid* patch in the centre of the largest area cannot be disregarded. In my opinion, the disease is a form of *sclerodermia,* related (as many of these cases are) to some alteration in thyroid function. Addison's account of sclerodermia under the name "true keloid" seems to provide the best explanation of such an anomalous case, where the sclerodermic process has stopped short of the stage of hardness and rigidity. I am inclined to adopt his view that there is "some morbid change taking place in the subcutaneous areolar tissue . . . very nearly allied to inflammation, probably of a strumous nature." I think we must look for the explanation of these anomalous cases not so much in the direction of a new and undescribed infective agent as in the direction of some variation in the behaviour or reaction of the tissues and cells of the individual to toxins and infections. In this instance the determining factor may very well be a derangement of thyroid activity, and, acting on this supposition, I have treated the patient with thyroid extract. Since this treatment was begun there has been a marked arrest of the spread of the lesions. Unfortunately, the biochemical investigation of disease is, as yet, only in its infancy, and the problems of dermatology have not yet come under that systematic investigation from this standpoint, which is, I believe, destined to explain many things at present incomprehensible.

Dr. BOLAM suggested that the patient's skin should be tested in its reaction to blistering or a hot bottle. He regarded it as a suspicious lesion, probably an artefact. Her occupation gave her the opportunities for observing effects of that kind.

Dr. ADAMSON said the suggestion made by Dr. Bolam that it might be artefacta occurred to him also, chiefly owing to the peculiar shape of the lesions. He thought the eruption and the scars were possibly produced by applications of hot fomentation or a hot bottle.

Dr. EDDOWES pointed out that there was often a great variation in sclerodermia. He had seen, in the same patients, typical patches of what would be called sclerodermia and others which would be called Morphœa alba, and large patches of melanodermia and leucodermia. They were almost certainly only stages in the same pathological process.

Dr. F. PARKES WEBER agreed that the possibilities of artefaction should always be borne in mind, but this case he regarded as one of the least likely cases to have that causation. He thought it inconceivable that such a condition could have been produced artificially; the distribution, and uniformly slightly depressed surface, of the pigmented areas were very remarkable. Then there was the absence of any redness, except about the site of the recent biopsy examination. If the condition were the result of artefaction one would have expected, at some time or other, redness and scarring of the affected surface.

Dr. **Nixon** also showed a case of *Acanthosis nigricans.* The patient is a female, aged 39 years, single, who noticed that her skin was becoming covered with small warts during the summer of 1913. There was a subjective sensation of itching, and sometimes a sharp, stinging feeling in the skin. The whole surface of the body, including the limbs, trunk and face, is covered with an eruption of sessile papillomata, varying from the size of a pin's head to a split-pea. Some of the papillomata are so minute that they present the appearance of the shining papules of Lichen planus. Since the eruption of the warts dark marks have appeared on the neck and in the folds of the joints, which were thought to be dirt. The skin of the neck, axillæ, elbows, wrists, groins and knees is distinctly thickened and ichthyotic, and presents a dirty, black, rough surface. There is no pigmentation of the mucosa of the mouth, but the papillomata occur on the lips. The patient complains of considerable discomfort from the papillomata on the eyelids. Otherwise there is no evidence of any visceral disease, such as has been described in other cases; there is no general glandular enlargement. The patient is aware of an increasing lassitude and occasional feelings of faintness, which suggest a resemblance to the early symptoms of Addison's disease. Pituitary, thyroid and suprarenal extracts have been tried, without benefit.

Dr. **Dore** asked whether skiagrams had been taken of the patient's internal organs. He had such a case in which there were no symptoms of visceral disease, but skiagrams revealed malignant disease of the lung.

Dr. **Nixon** replied that skiagrams had not been taken, but that should be done.

Dr. G. **Norman Meachen** showed a case of *congenital hairy mole.* The patient was a girl, aged 10 years, who presented a large hairy mole involving the bathing drawers area, the hair upon which, it was said, had begun to grow at the age of five years. In addition the rest of the body, face, and limbs was covered with numerous smaller pigmented moles. Over the large one at the back there were three swellings of a lipomatous character, which were said to have only made their appearance two months ago. Three months ago she was taken ill with an illness which was said to be "paralysis," and on account of some obvious wasting of the gluteal muscles upon the right side, Dr. Meachen asked Dr. T. R. Whipham, his colleague at the Prince of

Wales's Hospital, to see her. He found a good deal of muscular wasting upon the right side, and the right knee-jerk was feeble. Dr. J. Metcalfe was also kind enough to test her electrical reactions, which were as follows: Response to faradism below normal, galvanic reaction normal. The mother declared that the mole was due to the fact than an elephant thrust its trunk in her face one day at the "Zoo" when she was in the fourth month of her pregnancy. The pubic hair was well developed, but the girl had never menstruated.

Dr. NORMAN MEACHEN also showed a case of *congenital mole of peculiar distribution.* The patient was a boy, aged 4 years, the youngest of a family of nine, who presented a congenital mole upon the scalp and face of a somewhat unusual distribution. There was a large patch upon the right temporo-parietal region which almost exactly resembled a patch of tinea, the hair being partially denuded. So complete was the resemblance that a few hairs were taken and examined for spores, but with a negative result. Two other smaller patches were present upon the scalp, one in the right mid-parietal and the other in the mid-occipital region. There were also discrete patches of pale brown nævoid tissue, devoid of hair, upon the right side of the neck, upon the shoulder, and a linear one upon the nose. The mother was positive that the condition was due to the fact that she was frightened by a large crab in the fifth month of her pregnancy.

Dr. F. PARKES WEBER said that the cases he had collected * were different from this; they were associated with vascular overgrowth of angiomatous nature, including cases of so-called "congenital varicose veins." The evidence of nerve lesion in one lower extremity in Dr. Meachen's present case made it just possible that the large hairy nævus and the central tumour (though it felt like a lipoma) over the lower part of the vertebral column might be connected with latent spina bifida; but if that were the correct explanation, one would have expected the hypertrichosis to be much more limited in distribution than it was.

The CHAIRMAN (Dr. STOWERS) said that during the last eight months he had seen two cases of this character, though much more marked than this instance. One was that of a young lady, aged 17 years, who was so disinclined for it to be examined that only her parents and one other person, besides Dr. Pollock Muir, who brought the case to him, had seen it. The hair was limited to the buttocks and lower abdomen. The other was that of a youth, aged 16 years, who presented himself for examination previous to admission into a London bank as a junior clerk. The whole of his back was covered in a similar way, the hair being very abundant and pigmented. By means of a high collar he was just able to hide the upper limit. In both Dr. Meachen's cases there was a history of strong maternal impression. In his own two cases Dr. Stowers stated that maternal impressions were also reported. In the first (the girl) the mother when six and a half months pregnant was frightened by a cow, and in the second (the boy) the mother when five months pregnant was startled by a monkey jumping suddenly upon her lap.

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* F. P. Weber. "Angioma-formation in connection with Hypertrophy of Limbs." *Brit. Journ. Derm.*, 1907, xix, p. 231.

Dr. J. M. H. MacLeod showed a case of *alopecia following severe impetigo of the scalp in a girl, aged* 6 *years.* On the scalp there were a number of bald patches which were dotted over with small papillomatous growths. According to the mother's statement the affection had begun two years before in the form of purulent sores on the scalp which became crusted over with a thick scab; when this separated the bald areas were left, upon which the papillomatous growths subsequently appeared.

Dr. Adamson though the condition was post-kerionic alopecia; the distribution of the patches was characteristic of ringworm.

Dr. Corbett remarked that cases of ringworm which had been treated with pure carbolic or croton oil presented a similar appearance after the subsequent inflammation had cleared up.

Dr. Sequeira said he had not seen kerion leave this condition.

Dr. MacLeod replied that in kerions the hair usually grew well, but there was no sign of growth in this case, though it was undoubtedly a possible cause. He considered that the lesions on the surface of the bald patch were rather in the nature of excesses of small fibrous growths than true papillomata.

Dr. MacLeod also showed a case of *grouped comedones in a girl, aged* 2 *years.* The eruption began when the child was aged 1 year, and was probably the result of camphorated oil and turpentine, which had been rubbed on to the skin by the mother as the child suffered from bronchitis. It was present chiefly on the upper part of the back, shoulders and chest, and to a less extent on the forehead and cheeks. The lesions consisted of grouped comedones, acne pustules, white pitted scars, and minute fibrous thickenings dotted over with pits. A comedo was examined for acne bacilli with negative results.

Dr. Russell Wilkinson showed a case of *Dermatitis herpetiformis, treated with salvarsan.* The patient, a man, aged 42 years, was admitted to the Male Lock Hospital on January 2nd, 1914.

FIG. 1.

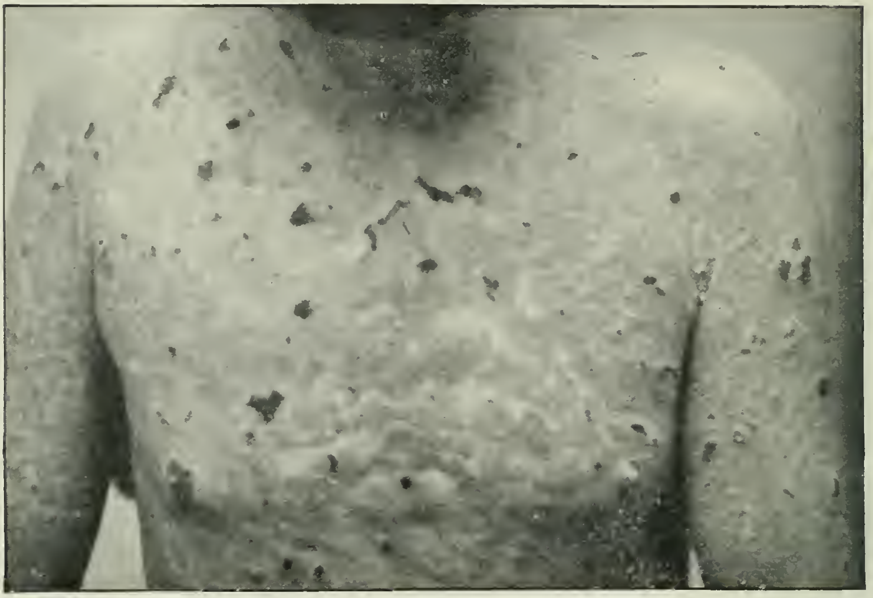
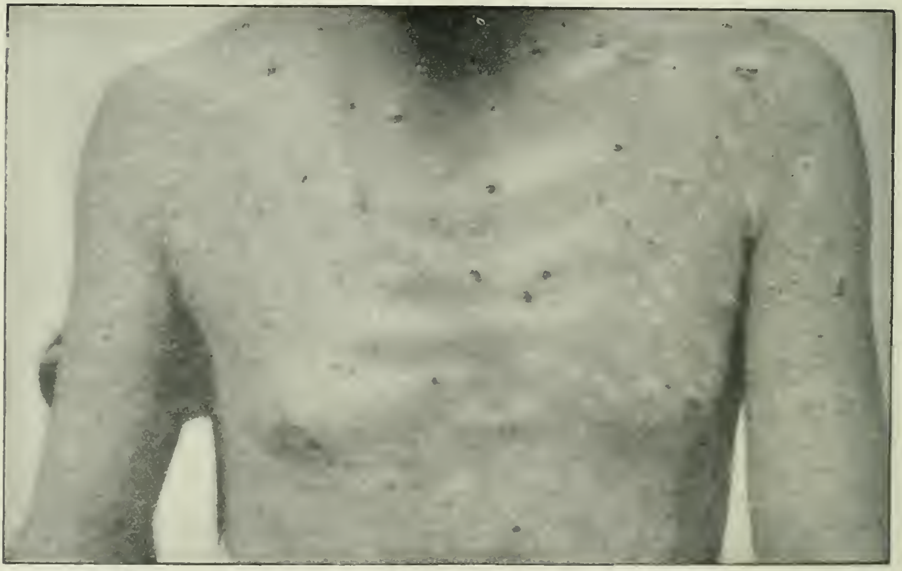


FIG. 2.



ILLUSTRATING DR. RUSSELL WILKINSON'S CASE OF DERMATITIS HERPETIFORMIS TREATED WITH SALVARSAN.

History: During November, 1912, when in a common lodging-house in Coventry, the patient noticed what he calls a blister on his chest, which lasted a few days and then burst, giving rise to a group of similar lesions. Within ten days his body was covered with the eruption, and he was taken to the infirmary at Bromley, where he remained for the fourteen months previous to admission. He denies having contracted syphilis, and there is no evidence that he has done so.

On admission: The whole body was covered with a generalised herpetiform eruption, with a tendency, especially on the chest, to the formation of definite groups. Close examination of any of these groups showed several blebs the size of small peas. Some of these in each group had burst, leaving a scaly crust, and a later stage of these lesions showed erythematous macules, which gradually faded, leaving a pigmented area. All these stages could be found in any typical group. The patient complained of the most intense irritation, and the smell was very offensive. A few hæmorrhagic vesicles were found, but the serum from the majority was clear, and was found to contain staphylococci only. The patient's general condition was very poor; he had marked glandular enlargement in both groins, and also behind the angle of the jaw. The axillary glands were unaffected, and the liver and spleen normal. The Wassermann reaction was tested twice, and was strongly positive on each occasion.

Progress: The patient had alternate sulphur and lysol baths daily, and was treated internally with 5 minims of benzol in olive oil four times daily. This was continued for three weeks, and the first series of photographs shows the result after that time. The improvement in his general condition was marked, but with regard to the lesions was very slight, and confined to the first four days, when the offensive odour began to disappear, and the crusts to be removed by the baths. On January 25th a blood-count was taken, showing polynuclears, 64 per cent.; eosinophiles, 22 per cent.; lymphocytes, 12 per cent.; large mononuclears, 2 per cent. One of the large glands was also removed from the groin, and sections of this were kindly prepared and examined by Mr. McDonagh. This showed that the capsule was much thickened, from which fibrous tissue strands passed into the medulla. The lymphoid follicles were on the whole well maintained, a few were increased in size, and others broken up where there had been an extra attempt at the formation of lymphocytes. In between the lymphoid follicles there was a large increase of lymphocytes with a marked proliferation of plasma-cells. There was no evidence of fragmentation of the protoplasma of the plasma-cells, nor of division of their nuclei. There was an extraordinary increase of "mast" cells. From this appearance one would judge the enlargement to be caused by a chronic infection, probably septic, there being nothing suggestive of a pseudo-leukæmic condition. On January 27th an intravenous injection of 0·9 grm. neo-salvarsan was given, and on the following day the irritation had subsided somewhat, and no fresh vesicles had appeared. The macular pigmentation began to fade more rapidly. These changes are shown in the second photograph, taken within twenty-four hours of the injection. On February 3rd a second injection was administered, and on the following day a further improvement was noticed, especially on the chest and upper abdomen, where nothing remained but the old pigmented areas, now gradually fading. On February 10th an injection of salvarsan, 0·6 grm., was given, and at present the outbreak of vesicles is limited to about three a day. The irritation is subsiding, but is still severe.

The points which it would be interesting to clear up are whether this is a case of Dermatitis herpetiformis with a plus Wassermann reaction, or whether the plus Wassermann reaction has to do with an old syphilitic affection, upon which the Dermatitis herpetiformis is either dependent or independent. With such a high blood-count of eosinophiles, and such a diminution in the number of lymphocytes, a pseudo-leukæmic condition seems probable. However, pseudo-leukæmia may be preceded by Dermatitis herpetiformis, and there is no doubt that syphilis plays a part in its causal relationship.

In conclusion, I wish to state my great indebtedness to Mr. McDonagh for the help he has given me, and to thank him and Mr. Lane for permission to show the case.

Dr. H. C. SEMON said he had a case at the Great Northern Hospital which, clinically, could not be distinguished from the present one, and he mentioned it in order to raise a point in regard to it. The patient had been under treatment for psoriasis for twelve years, and one of the physicians who treated her was the late Dr. Radcliffe-Crocker, whose prescriptions he had seen. From them it seemed clear that the case had been psoriasis. During the last four months she had been under treatment by a local practitioner (no arsenic given), who assured him it was psoriasis. When she came to hospital she was developing lesions of what he regarded as of a pemphigoid type, and later she developed typical crescentic erythematous patches, and on the surface of these the vesicles designated Dermatitis herpetiformis of Duhring. He had not given her salvarsan, but she had reached a high dosage of arsenic—namely, 12 minims three times a day, and was rapidly improving under it. Dr. Gray had seen the case and agreed that it was Dermatitis herpetiformis. He asked whether psoriasis had ever directly preceded Dermatitis herpetiformis, or whether the latter might be due to some energetic self-treatment of psoriasis. She had used cuticura soap and ointment, and had consecutively developed exfoliation, especially of the palms and soles. There was no specific history. The blood showed 27 per cent. eosinophiles, exceeding even the high percentage of the present case. There was no evidence of intestinal sepsis. She had had a raised temperature, but it had now subsided.

Dr. W. KNOWSLEY SIBLEY showed a case of *Lupus erythematosus affecting the buccal mucous membrane.* The patient is a married woman, aged 42 years, who has suffered from Lupus erythematosus of the scalp, face and mouth for the last twelve years. The lesions first appeared on the scalp, then on the left cheek, over the bridge of the nose, and about the same period on the buccal mucous membrane. At the present time some half a dozen roundish isolated patches, varying from 1 to 2 cm. in size, are situated in the scalp region, showing superficial scarring with complete alopecia; small lesions are also present in both ears, and two on the cheek in front of the left ear. There is not any affection of the fingers. The oral mucous membrane is extensively involved, nearly the whole of that covering both sides of the cheeks show superficial scarring, and in places some more recent ulceration, together with a good deal of lividity with a distinctly violaceous tinge. An active lesion is present on the vermilion of the upper lip, which is very painful, the condition inside the mouth not having given rise to much discomfort. On the upper lip there are slight infiltration, some superficial ulceration, and in places well-marked small sieve-like puncta, showing infiltration and degenerative changes of the sebaceous glands and their ducts. The lower lip is unaffected, so also are the hard and soft palate and tongue. At one period the mucous membrane just inside the alæ nasi was also affected, the condition having here extended from the skin, which shows some atrophic scarring in this region.

Lesions of the mucous membranes in Lupus erythematosus were considered to be very rare, but recent observations point to a more common occurrence. The fact that lesions inside the mouth in this disease do not as a rule give rise to much discomfort is probably the explanation why they are frequently overlooked. The case under discussion, although she has had the condition for many years, had never mentioned it, until a recent painful lesion on the vermilion of the lip drew attention to this region. She states that the condition, both of the skin and of the inside of the mouth, is always worse in cold weather, and that at times the irritation of the lesions on the scalp and face is very considerable.

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Dr. SEQUEIRA said that one of his clinical assistants, Dr. T. Smith, in 1906, examined fifty-six consecutive cases of Lupus erythematous, and found lesions of the mucous membrane in 28 per cent.*

Dr. DUDLEY CORBETT showed a case of *Lichen planus hypertrophicus*. The patient was a girl, aged 15 years, who came under observation a fortnight ago with this condition, which had started six weeks previously. The patches had a linear distribution on the anterior aspect of the right arm, extending to and involving part of the thenar eminence. The lower patches were raised above the level of the surrounding skin, and were covered with a dense layer of horny epithelium. The patch on the upper arm was of more recent origin, and it could be seen that the process had started in the hair-follicles. Pigmentation was evident in the older lesions, being of a bluish-red colour. There were no other lesions on the body. She had had two one-third pastille doses of X-rays at an interval of a fortnight, which had altered the appearance of the lesions considerably, all the hyperkeratosis had disappeared, and the patches were now level with the surrounding skin. No other treatment had been used, and no arsenic had been given. The condition at first sight resembled a unilateral nævus, but closer inspection, and the fact that improvement under X-rays had been so rapid, showed that it was a hypertrophic Lichen planus with a linear arrangement. The age of the patient and the unilateral distribution marked this as an unusual case.

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* *Brit. Journ. Derm.*, xviii, p. 59.

Dr. J. H. Sequeira showed a case of *multiple idiopathic pigment sarcoma treated by X-rays*. Dr. Sequeira again brought before the Section a male patient suffering from Kaposi's so-called multiple idiopathic pigment sarcoma, to show the remarkable improvement under X-ray treatment. The patient was shown at the International Medical Congress in August and at the meeting of the Section in October. The case, which was reported in full in the *British Journal of Dermatology*, xxv, p. 351, was an early one, characterised chiefly by chronic purplish infiltration of the feet and ankles, and to a less degree of the wrists and backs of the hands. There were a few small nodules upon the generally infiltrated areas. The X-ray treatment was begun in August, and was repeated at somewhat irregular intervals. In all, each part affected received about 50 H units, each application being made through a screen of aluminium 0·5 mm. thick. There had been no reaction. The condition of the infected areas was now completely changed; the skin was of normal consistence, and the purplish tint had gone. Beyond some brownish staining of the parts there was no evidence of the disease. The case will be carefully watched and further reports made.

Dr. H. MacCormac showed a case of *Polycythæmia rubra*. G. H—, aged 64 years; nothing of importance in family history. His health has generally been excellent. No illness until six years ago. The present condition began six years ago, when his friends told him his face looked "flushed and blue." About this time he had his first attack of articular gout; since then he has had several other attacks. He has also had sciatica. The rubicund condition of his face and extremities has become more marked. The small blood-vessels can be very distinctly seen on the face, and there is a general reddish-blue colour, which is also well marked on the mucous membranes. Apart from a feeling of lassitude his general condition is fairly good. The spleen is very considerably enlarged. Blood-count: Red blood-corpuscles, 8,500,000; white blood-corpuscles, 9,000; hæmoglobin, 130 per cent.

The patient has been exhibited at another Section by Dr. Essex Wynter.

Dr. W. T. Freeman showed a case of *bromide eruption* (*Bromiderma tuberosum*). G. G—, aged 14 months, male. Admitted as out-patient under the care of Dr. Murrell at the Royal Berkshire Hospital, on December 23rd, 1913. Five weeks previously he had been given a mixture containing 2 gr. potassium bromide to the dose. In all he had taken about 80 gr. About three days after starting the medicine a papular rash appeared scattered singly over the face, body and limbs. The papules were hard and tense and a few of them became umbilicated. They rapidly increased in size.

When brought to the hospital a large number of the papules presented the appearance already described. Many, however, had developed into tuberose growths, and the largest growth upon the face measured 2¾ in. by 1½ in. and was raised ⅝ in. from the surface of the skin. Many of the others upon the body and limbs were of nearly the same measurement. They had a feeling of fluctuation, but contained no fluid.

The child was not ill, was cheerful, and there was no temperature. There was a disagreeable odour from the body. The photographs show the condition at its height. When exhibited at the Royal

Society of Medicine the papules had disappeared, the larger growths had subsided considerably, and the lesser ones were represented by pigmentary stains.

Dr. George Pernet showed a case of *rodent ulcer*. The patient was a woman, aged 56 years, with a rodent ulcer of four years' duration, which had been allowed to spread unchecked from the beginning. No advice of any kind had been sought until the patient attended the West London Hospital two weeks previously. The rodent extended from the inner canthus of the left eye, and had spread over the nose, destroying the left ala nasi. The general appearances are well brought out in the photograph.

[The account of the discussion on Pityriasis rosea, opened by Dr. Graham Little at the evening meeting held February 19th, is unavoidably held over to the next number through want of space.]

CURRENT LITERATURE.

A CASE OF LYMPHATIC LEUKÆMIA WITH GENERALISED HERPES ZOSTER. Fischl. (*Archiv f. Derm. u. Syph.*, cxviii, No. 1, September, 1913.)

On the fifth day of an illness which began suddenly with headache and pains in his limbs, the patient, a man, aged 61 years, developed an eruption of grouped herpetic vesicles on the right side of his neck. This spread very rapidly to his head, and in the course of a few days involved the entire trunk and limbs. The contents of the vesicles, which mostly did not exceed a pea in size, was a blood-stained serum, and here and there were lesions of a papular type, and crusted remains of older vesicles.

The glands in the right submaxillary region were considerably enlarged, but their outlines were obscured by the œdema resulting from the eruption. All the glands of the body were abnormally palpable, but not to the same extent as those in the right cervical region. The patient succumbed on the seventeenth day of his illness, after tracheotomy had been performed for angina of the right tonsillar region. There was a high temperature during the last four days of his disease. The Wassermann reaction was negative. The blood picture was that of a lymphocytosis of which the elements were of an unusually large size.

The post-mortem examination revealed leukæmic infiltration of the liver, the spleen and the kidneys, with general enlargement of all the lymph-glands. The only posterior nerve-roots examined were the Gasserian on both sides. The changes in these were more marked on the right side than the left, and consisted of a periganglionic infiltration by lymphocytes, which had nowhere actually invaded the nerve elements. Ependymic, mast- and plasma-cells were also evident, and the author concludes that the nerve-cells had been destroyed by a process which he terms secondary neuronophagia. Sections of the skin revealed a total necrosis of the epidermis in some places, partial in others, with marked œdema of the rete and vacuolisation and coagulation necrosis of the epithelial cells.

The discussion of this rare case occupies three pages; it must suffice to summarise the writer's conclusions.

The eruption of zoster vesicles can be explained on two hypotheses: (1) The leukæmic skin infiltrations were *loci minoris resistentiæ*, which fostered the tendency to generalisation of the herpes initiated in the right Gasserian ganglion; or (2) the herpes was primary, and the leukæmic infiltrations were secondary in the herpetic lesions.

H. C. S.

A CASE OF BUCCAL HYDROA TREATED AND CURED BY AUTO-HÆMATOTHERAPY. Ravaut, Gaston and Chompret. (*Bull. de la Soc. Franç. de Derm. et de Syph.*, No. 9, December, 1913, p. 540.)

This patient, whose disease had been rebellious to all treatment, was given eight injections of blood at intervals of two days; 20 c.c. of blood were drawn from the vein of the arm and injected at once into the muscles of the thigh. From the fourth injection there was a notable improvement, and with the eighth the eruption had disappeared entirely. There was a diminution of polynuclear leucocytes and an increase of eosinophiles in the blood at the end of the course of treatment.

H. G. A.

PELADE AND EXOPHTHALMIC GOITRE. R. Sabouraud. (*Ann. de Derm. et de Syph.*, 1913, No. 3, p. 140.)

The author notes that certain cases of pelade, almost always chronic and severe, appear to be directly connected with Basedow's disease: some of them appear to be aggravated, others ameliorated by the disease. Children of patients with Basedow's disease, who present symptoms of thyroid insufficiency, may have Alopecia areata without vitiligo, or *vice versâ*. The author refers to his previous observations on the relation of pelade to ovarian troubles, and considers it worthy of note that among the obscure causes of Alopecia areata the influence of these two ductless glands appears to play a part.

A. M. H. G.

STUDY OF A NEW PROCEDURE OF INJECTION OF NEO-SALVARSAN IN CONCENTRATED SOLUTION. Ravaut and Scheikevitch. (*Ann. de Derm. et de Syph.*, 1913, No. 4, p. 206.)

The authors, in an exhaustive paper, give their experiences of neo-salvarsan injected intravenously in concentrated solution. In the first place the technique employed is described in detail. The neo-salvarsan is dissolved in carefully re-distilled water in from 10 to 17 c.c. according to the dose to be administered, the whole process of making the solution and giving the injection being extremely rapid. They show that the solutions they employ are slightly hypertonic, and do not cause hæmolysis. By giving these concentrated solutions they have been able to abolish the "immediate" reactions, which had frequently been seen when using the more dilute solutions. This, they consider, might be due either to the reduction in bulk of the water, which might contain some fever-producing substance; to the absence of the sodium chloride in the solution employed; to the prevention of hæmolysis by using hypertonic solutions; or to the prevention of oxidation of the neo-salvarsan by the rapid preparation and injection.

The authors also point out that a febrile reaction, coming on later than the reaction referred to above, is almost the rule after the first injection in syphilitics who have not been previously treated, while it is almost invariably absent in subsequent injections. These facts are illustrated by a carefully prepared table and numerous temperature charts.

In the last part of their paper the authors deal with the question of the nervous system in syphilis, especially in the secondary stage. They believe that nervous lesions are frequent in this stage of the disease, and that the so-called neuro-recurrences occurring after the administration of salvarsan are produced by an irritation of pre-existing lesions by the drug. They suggest methods of administering neo-salvarsan so as to avoid the occurrence of these accidents.

A. M. H. G.

DIFFUSE ELASTOMA OF THE SKIN. W. Dubreuilh. (*Ann. de Derm. et de Syph.*, 1913, No. 4, p. 193.)

Dubreuilh describes three cases of a condition which he considers to be similar to cases described under the name Pseudo-xanthoma elasticum. His cases, however, differ in affecting exposed parts of the body, the face and neck, and in being absolutely diffuse and confluent without showing any nodular structure. The skin was thickened, soft and wrinkled, and of a peculiar dull and opaque yellow colour. All the cases described occurred in patients over sixty years of age. The author was not able to discover any ætiological factors. Microscopical examination of skin removed in two cases showed a continuous layer of elastic tissue, about ½ mm. thick, separating the epidermis from the upper part of the dermis. The cases thus resembled that of Dohi rather than that of Darier, in which the elastic tissue was found in the deep layers of the dermis. The author considers the elastic tissue to be of the nature of a new growth, and not a degeneration.

A. M. H. G.

CONCERNING THE LICHENOID TUBERCULIDES OF THE TYPE OF THE LICHEN OF WILSON. C. Vignolo-Lutati. (*Ann. de Derm. et de Syph.*, 1913, No. 4, p. 200.)

The author describes the case of a girl, aged 25 years, a sufferer from glandular and pulmonary tuberculosis, who developed lesions on the dorsum of the hands and forearms, which closely resembled Lichen planus in character; they were unaccompanied by itching or pain. Histologically the lesions showed a dense infiltration of the papillary and subpapillary layers of the dermis, mainly composed of mononuclear cells, polymorphous connective-tissue cells and multinuclear leucocytes; the vessels were dilated, and strands of cellular infiltration extended along them into the deeper layers of the dermis. Stained by Weiss' method, which the author describes in detail, a few tubercle bacilli could be demonstrated. Inoculation into a guinea-pig of an emulsion prepared from the papules gave negative results. The author considers the case an atypical Lichen scrofulosorum. He points out, by reference to published cases, that this disease does not always appear in the form described by Hebra, and he considers that many transition stages may be found between Lichen scrofulosorum and the typical tuberculides.

A. M. H. G.

NOTICE.

The Fourteenth Tour to the Mineral Water Spas, Maritime and Climatic Stations of France will take place from August 30th to September 12th, 1914, under the personal direction of Professor Landouzy. The following stations will be visited: Vittel, Contrexeville, Martigny, Bourbonne, Plombières, Bains-les-Bains, Luxeuil, Bussang, Gérardmer, La Schlucht, Le Honech, Nancy, Mondorf, Saint-Amand, Berck, Forges-les-Eaux, Bagnoles-de-l'Orne, Zuydcoote (Sanatorium). Full information may be obtained from Dr. Carron de la Carrière, 2 Rue Lincoln, and Dr. Jouaust, 4 Rue Frédéric-Bastiat, Paris.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

Chilblains and their Bio-kinetic Treatment. L. JACQUET and DEBAT. (*Bull. et Mem. de la Soc. Med. des Hôp. de Paris.* No. 4, February 5th, 1914, p. 185.)

Dermatitis Herpetiformis and Prurigo, Studies in the Metabolism of. H. J. SCHWARTZ. (*Journ. of Cut. Dis.*, 1913, vol. xxxi, p. 994.)

Dermatoses Neuroticæ. W. P. CUNNINGHAM. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 225.)

Erysipelas, Clinical Observations on 800 Cases. S. ERDMAN. (*Journ. Amer. Med. Assoc.*, 1913, vol. lxi, p. 2048.)

Exfoliating Erythrodermias and particularly Pityriasis Rubra, Contribution to the Study of. WALTER MORGAN and CONSTANTIN ILIESCON. (*Ann. de Derm. et de Syph.*, vol. iv, No. 11, November, 1913, p. 577.)

Glanders, Notes on Three Cases of. H. M. M. WOODWARD and K. B. CLARKE. (*Lancet*; 1913, vol. ii, p. 1696.)

Glossitis, Median, Lozenge-like, of the Dorsal Surface of the Tongue. L. BROCQ and M. PAUTRIER. (*Ann. de Derm. et de Syph.*, vol. v, No. 1, January, 1914, p. 1.)

Hydroa, Buccal. GASTON and CHOMPRET. (*Bull. de la Soc. Franc. de Derm. et de Syph.*, No. 8, November, 1913, p. 43.)

Hydroa, Buccal, treated by Auto-hæmatotherapy, Case of. RAVAUT, GASTON and CHOMPRET. (*Bull. de la Soc. Franc. de Derm. et de Syph.*, No. 9, December, 1913, p. 540.)

Hydroa Vacciniforme of Bazin. PAUTRIER and PAYENNEVILLE. (*Bull. de la Soc. Franc. de Derm. et de Syph.*, No. 8, November, 1913, p. 528.)

Infantile Eczema. B. F. OCHS. (*Med. Record*, 1913, vol. lxxxiv, p. 942.)

Lichen Nitidus (Malady of Pinkus), A Case of. BROCQ and FERNET. (*Bull. de la Soc. Franc. de Derm. et de Syph.*, No. 9, December, 1913, p. 557.)

Lichen Nitidus (Pinkus), A Case of. CH. AUDRY. (*Ann. de Derm. et de Syph.*, vol. iv, No. 12, December, 1913, p. 669.)

Lichen Planus, Symptomatology and Treatment of Some Variant Forms of. R. L. SUTTON. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 175.)

Lupus Erythematosus by Carbonic Snow, On the Treatment of. PAUL HASLUND. (*Ann. de Derm. et de Syph.*, vol. iv, No. 12, December, 1913, p. 641.)

Pellagra, Ætiology of. P. BARTHOLOW. (*New York Med. Journ.*, 1913, vol. xcviii, p. 1262.)

Pellagra, Fatal Case in an Insane Patient. F. E. RAINSFORD. (*Lancet*, 1913, vol. ii, p. 1759.)

Pellagra: Report of Thompson-McFadden Commission. J. F. SILER, P. E. GARRISON and W. J. MACNEIL. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 8.)

Pellagra, Treatment of. G. M. NILES. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 285.)

Pellagra in Maine. E. W. GEHRING. (*New York Med. Journ.*, 1913, vol. xcviii, p. 1212.)

Pemphigus, Acute. G. W. M. CUSTANCE. (*Practitioner*, 1913, vol xci, p. 710.)

Purpura, Fatal, following Scarlet Fever. J. D. ROLLESTON. (*Brit. Med. Journ.*, 1913, vol. ii, p. 1302.)

Raynaud's Disease and Syphilis. L. GIROUX. (*Ann. des Mal. Vénér.*, No. 12, December, 1913, p. 881.)

Rhinophyma Successfully Treated by "Decortication." A. P. HEINECK. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 105.)

Urticaria Pigmentosa (Study of the Blood-Count). JEANSELME and TOURAINE. (*Bull. de la Soc. Franç. de Derm. et de Syph.*, No. 8, November, 1913, p. 427.)

Zeism or Pellagra? P. A. NIGHTINGALE. (*Brit. Med. Journ.*, 1914, vol. i, p. 300.)

ANIMAL PARASITIC DISEASES.

Phthirius Pubis, Infection of the Hairy Scalp of the Adult by. J. BRAULT and T. MONTPELLIER. (*Gaz. des Hôp.*, No. 17, February 10th, 1914, p. 261 : *Bull. de la Soc. Franç. de Derm. et de Syph.*, No. 1, January, 1914, p. 78.)

FUNGUS INFECTIONS.

Actinomycosis, On the Treatment of. E. PINOY. (*Ann. de Derm. et de Syph.*, vol. iv, No. 10, October, 1913, p. 544.)

Ringworm, A New Treatment for. C. H. FOLEY. (*Lancet*, 1914, vol. i, p. 242.)

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Trichophyton Gypseum Asteroides and Two New Representatives of this Group. W. FISCHER. (*Derm. Woch.*, 1913, vol. lvii, p. 1395.)

TUBERCULOSIS.

Lupus of the Glans Penis. A. KRAUS. (*Derm. Woch.*, 1914, vol. lviii, p. 249.)

Lupus Vulgaris, Gold and Copper Treatment of. V. MENTBERGER. (*Derm. Woch.*, 1914, vol. lviii, p. 169.)

Skin Tuberculosis, Histological Studies in Some Types of. J. A. FORDYCE. (*Journ. of Cut. Dis.*, 1914, vol. xxxii, p. 23.)

Tuberculin Reaction, The Percutaneous. A. J. B. LECKIE. (*Lancet*, 1914, vol. i, p. 305.)

LEPROSY.

Lepra Bacillus, Transmissibility by Bed-bug. A. J. SMITH, K. M. LYNCH and D. RIVAS. (*Amer. Journ. Med. Sci.*, 1913, vol. cxlvi, p. 671.)

Leprosy after Two-year Incubation Period. V. G. HEISER. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 205.)

Leprosy, Case of Maculo-tubercular Form of. W. R. JAMIESON. (*Journ. Amer. Med. Assoc.*, 1914, vol. lxii, p. 36.)

Leprosy, Clinical and Bacteriological Aspects of. H. BAYON. (*Brit. Med. Journ.*, 1913, vol. ii, p. 1420.)

Leprosy in South Africa, Necessity of Segregation. H. BAYON. (*Lepra*, 1914, vol. xiv, p. 131.)

Leprosy Literature 1912 and 1913. O. HAMANN. (*Lepra*, 1914, vol. xiv, p. 149.)

The Leprosy Problem of the British Empire. H. BAYON. (*Lancet*, 1913, vol. ii, p. 1527.)

Leprosy Question in Kurland. T. SADIKOFF. (*Lepra*, 1914, vol. xiv, p. 125.)

Leprosy, Review of Bacteriology of Human and Rat. S. B. WOLBACH and J. E. HONEIJ. (*Journ. Med. Research*, 1914, vol. xxix, p. 367.)

Leprosy, Some Notes on Symptoms. J. A. HONEIJ. (*Boston Med. and Surg. Journ.*, 1914, vol. clxx, p. 85.)

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THE BRITISH
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APRIL, 1914.

CLINICAL NOTE.

A CASE OF RECURRENT BULLOUS ERUPTION.

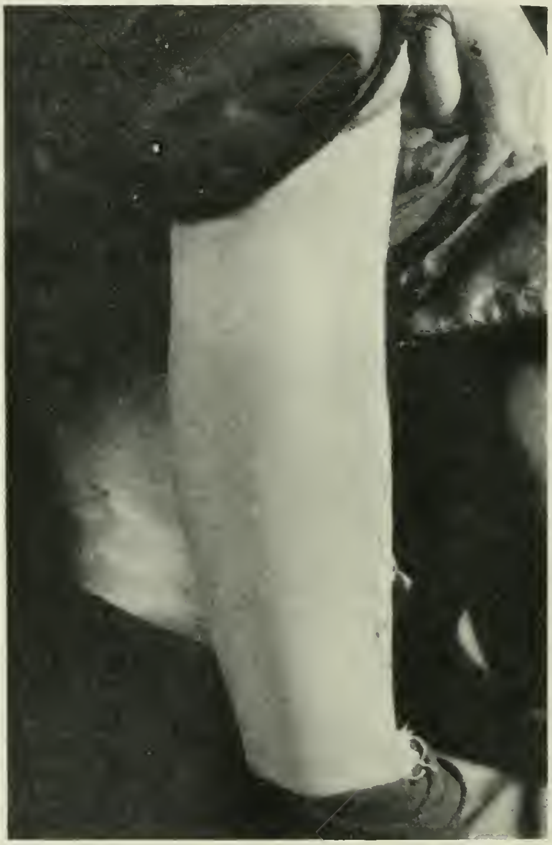
By W. KNOWSLEY SIBLEY, M.D.

The patient was a woman, aged 63 years, whose skin in early life did not present any unnatural condition, except she remembers she always bruised very easily. There was not any other case of this condition known in her family. Her father died at eighty, and her mother, who at one time suffered from a slight "scaly rash" on the palms, died after an accident. The patient had suffered from a perpetually recurring bullous eruption on the front of both legs for thirty years, and from a similar condition on the posterior surface of the left arm, just above the elbow, for ten years. There had never been any lesions on any other part of the body.

The condition on the right leg originated from a blow received thirty years ago across the shin by the tail of a large dog. The patient remembered that the seat of the injury bled a good deal the same evening, when she noticed that a large blister had formed with much discoloration around. The formation of blebs has persisted on and off ever since, and from time to time they bled freely and her clothes became saturated with blood, after which the places were much more comfortable. There was always a good deal of irritation and discomfort of the skin before new blebs appeared, and this condition was always worse in hot weather.

Two years ago she was in a hospital, where a hard horny growth was removed from the anterior surface of the right leg. The present horny excrescence has since developed on the same spot.

The lesion on the left arm presented a moist secreting surface covered with scabs, and about two centimetres in diameter, and which she stated had been present for ten years; the skin around appeared to be normal.



On the anterior surface of both legs the skin of rather more than the middle third was mottled, pigmented, stained and superficially scarred, showing evidences of previous multiple bullous lesions, and three more or less recent bullæ about a centimetre in diameter were present on the right leg. There was also a hard horny excrescence firmly attached to and apparently growing from the skin, projecting some two centimetres from the surface. This appeared to be formed by a process of coagulation of a constant serous exudation from one of the lesions, and was on the spot where two years previously she had had a similar lesion removed.

A microscopical section from a recent bleb on the leg showed a thickening of the horny layer and a well-marked stratum granulosum. There was an absence of hair follicles, sweat-glands or papillæ. The epidermis was rudimentary and imperfectly developed. The dermis was infiltrated with leucocytes and round-cells, the vessels were dilated and the endothelium proliferated. There was some œdema.

The patient presented some features suggesting Epidermolysis bullosa, but the lesions were not present during the earlier years of life, also there was no evidence of heredity nor of affections of the fingers or nails. The curious horny excrescence developing from one of the lesions, clearly shown in the accompanying photographs, was certainly a peculiar feature.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on February 19th, 1914, Dr. James Galloway, Vice-President of the Section, in the Chair.

DISCUSSION ON PITYRIASIS ROSEA.

Opened by E. G. Graham Little, M.D.

I should like to begin my remarks with a grateful acknowledgment to Dr. J. J. Pringle for his choice of myself as the first introducer of a paper during his presidency of the Section. It is a pleasant reflection to me that I learnt much of what I know of dermatology during my happy apprenticeship with him at the Middlesex Hospital, and it is a very sincere regret to me that he is unable through illness to preside, as he intended to do, to-night.

I have made a very careful analysis of my personal experiences of this disease at St. Mary's Hospital, at the East London Hospital for

Children, and in private practice during the past eleven years; since, in fact, I have been in charge of the Skin-Departments. At those hospitals I find that of a total number of 21,075 cases of general skin-disease seen in a mixed clinic, 146 were case of Pityriasis rosea. Of 5864 cases of skin-disease of which I have notes at the Children's Hospital, 28 were cases of Pityriasis rosea, so that I have records of 174 personal cases. This is the largest number of cases of this disease of which I can find any recorded analysis by a single observer, and although it is in itself too small a number to serve as the foundation of a statistical inquiry of any value, the personal impressions derived from their study, reinforced by the personal impressions of my colleagues in charge of dermatological departments which the subsequent discussion may call forth, may not be without interest or some practical utility.

This disease has probably been chosen for the discussion this evening because the views held as to its ætiology have long been in a fluid condition, and recently an observation has been put on record which again revives the possibility that some of the older writers were correct in regarding Pityriasis rosea as an infective disease, due to the presence of pathogenic organisms. The identification of the disease is recent enough for the history to be interesting. It is curious that Gibert, who first gave an account of the characteristic eruption, and who has the undivided credit of its discovery, really missed very much of its significance, and his description is extremely short, so that I propose to read the text to you.

Pityriasis.—" One can thus establish some new distinctions intermediary between Pityriasis simplex and Pityriasis rubra, according to the form, extent, course and degree of coloration of the eruption. The two most accentuated types which we have observed in this category of eruptions are: (1) The class which we have just indicated, the aspect of which approximates somewhat to lichen, sometimes to psoriasis. (2) Another variety which one might describe by the name of Pityriasis rosea, and which offers the following characteristics: There are small branny patches, very slightly coloured, irregular, of a size which seldom exceeds that of the nail; numerous and closely grouped, but always separated by some interval of healthy skin; itchy, spreading on the upper parts of the body, by preference on the neck and upper part of the chest and of the arm. They may progressively develop from above downwards to the level of the thighs, so that the whole duration of the eruption, which, as it ascends lower, fades little by little in the parts which it occupied previously, is usually six weeks to two months. This eruption, which is commoner in women than in men, appears fairly frequently during the hot season of the year. It is chiefly observed in young people, and in those persons whose skin is white and fine and delicate."

Gibert describes five principal varieties of pityriasis classed as follows: (1) Pityriasis simplex; (2) Pityriasis rosea; (3) Pityriasis rubra; (4) Pityriasis versicolor; (5) Pityriasis nigra (Alibert). He adds a few pages later in the same work the curious statement that Pityriasis rosea is "subject to recurrences." He remarks upon the fungus, then newly discovered, in Pityriasis versicolor, and says that repeated experiments failed to show any fungus in Pityriasis rosea. This appeared only in the third edition of his treatise in 1860. It is a matter of some doubt whether the disease had been previously indicated by other names, for it has been suggested, for example, that Willan's (1798) "Roseola annulata," Rayer's (1828) "Erythema annulatum," and Wilson's (1857) "Lichen annulatus serpiginosus," were probably cases of Pityriasis rosea. Gibert, however, undoubtedly first gave its present name, and his description remains a faithful account of at least one form of this disease. It will be seen from the text which I have read to you that he did not recognise the annular variety of Pityriasis rosea. He, in fact, as I have shown, considered his Pityriasis rosea as an intermediate variety between Pityriasis simplex and Pityriasis rubra.

Attention was directed to the much commoner variety, that with annular lesions, by Bazin in 1862. Another remarkable feature of Pityriasis rosea, the appearance of the so-called "primitive patch," was made known by another great French dermatologist, Brocq, in 1887; Thibierge first drew attention in 1889 to the fact that Pityriasis rosea does not occur twice in the same patient. Darier in the same year described its histology. Thus, the accepted description of Pityriasis rosea is essentially due to the great French school. Singularly enough, it is on the other hand owing to the Viennese school that the most curious confusion of this disease with ringworm arose, and has persisted even to the present day with some members of that school. Ferdinand Hebra, in 1876, described what we now consider to have been Pityriasis rosea under the term, "Herpes tonsurans maculosus." His views were supported by Kaposi, who continued Hebra's work. On p. 214, vol. v, of the Sydenham Society's *Transactions,* there is a woodcut illustration of the fungus and spores, which, according to these authors, are to be found in the scales of Pityriasis rosea. The picture supports the description of the text, that the disease is a form of ringworm. Behrend, in 1881, made a notable protest against this view, but some later writers have supported Hebra; Havas, for example, says that he "always" finds fungus in the scales of Pityriasis rosea; in an elaborate paper chiefly devoted to histology, Loewenbach claims to differentiate, on histological grounds, Pityriasis rosea from Herpes tonsurans maculosus. It is rather difficult to apprehend on what cases Hebra founded his description. In one of my own cases there was a most curious and, I believe, unique coincidence of Pityriasis rosea with Tinea circinata, the fungus being readily demonstrated in one or two lesions of true tinea, and entirely absent from the great majority of the lesions, which were those of Pityriasis rosea.* Whether Hebra really confused such cases is impossible to say, but it may probably be asserted with confidence that the view that Pityriasis rosea is due to ringworm organisms is erroneous, and essentially obsolete at present.

The description of a parasite other than ringworm as a cause of the disease originates with a communication by Vidal in 1882, when this author published an account of several cases of an eruption which he called "Pityriasis circiné et marginé." He himself regarded his disease as differentiated from Pityriasis rosea, and he gave elaborate distinctions between them; but, nothwithstanding, it is difficult to avoid the conclusion to which his colleague Besnier is driven, that Vidal's disease is Pityriasis rosea in somewhat anomalous varieties. But the circumstance which lends particular interest to Vidal's communication is that he claims to have found in all his cases a peculiar kind of spore, distinguished by its smallness and inequality of size, from which circumstance he proposed the name of *Microsporon dispar:* by its position surrounding the epithelial cells and the orifices of hair-follicles; by its absence of mycelium, although sparse chains of four or five spores could be seen. Ferrari, in 1885, confirmed Vidal's statement, but, with this exception, Vidal found no support for his parasite until the quite recent communication by Du Bois in 1912. This is so interesting a paper that I propose to consider it more in detail later.

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* *Brit. Journ. Derm.*, xviii, p. 184.

The parasitic theories having met with little support in the past thirty years, other views as to ætiology prevailed; the lapse of an appreciable interval between the appearance of Brocq's primitive patch and the general invasion of the disease offered some resemblance to the incubation period of a specific fever, and Brocq, in fact, drew an analogy between the primitive patch and the chancre in syphilis. The regular course of the eruption, which behaves rather like an exanthem; the involution of the disease, practically unaffected by treatment; and the apparent immunity conferred by an attack, all suggested that Pityriasis rosea is of the nature of a specific fever. Much probability was added to this view by the not infrequent general enlargement of the glands and constitutional symptoms observed in this disease. The chief difficulty in the acceptance of this causation is to be found in the extreme rarity of any history of infection. Instances in which patients may seem to have contracted the disease from contact, although they exist, are extremely few. The best established is that of Leistler's personal experience. He developed Pityriasis rosea, diagnosed as such by Hyde; two weeks later his wife showed the same eruption. Crocker saw it on two occasions in members of one family. Fordyce noted the disease "about the same time" in husband and wife; and in two sisters occupying the same bed; and ringworm was specially excluded in both cases. G. H. Fox records it in a mother and child. Horand is usually quoted as describing a possible instance of infection in two brothers, but reference to his original paper establishes the fact that the one brother had the disease from March 20th to June 27th, 1874, and the second brother from September 3rd to October 28th of the same year, there being thus a clear interval of over two months between the cases. In my personal series of 146 cases I have seen it in a woman, aged 34 years, whose sister had it a week previously. This is the only instance in which I have met with an approximate affirmative in my repeated investigations as to infectivity.

The very irregular incubation period—*i.e.* the interval between the initial lesion and general invasion—which Brocq in his original paper gave as varying from four to fifteen days—is also a difficult objection which the infective theory has to meet. The complete absence of any apparent incubation period in more than half the cases constitutes a still more formidable objection. It is not surprising, therefore, that other causes have from time to time been invoked as explaining the disease. Analogies have been found between Pityriasis rosea and the toxic erythemata; Besnier, while admitting the great probability of a "microphytic cause," is impressed with the frequent association with gastric dilatation, as noted by Jacquet, Feulard, and others; Sherwell saw it two or three times in connection with pregnancy, in one instance at two successive pregnancies in the same patient. Fiocco noted the occurrence of indicanuria and peptonuria, usually to be regarded as indications of intestinal disturbance, in a series of cases of Pityriasis rosea. Phillips observed two attacks of jaundice in a prolonged case of Pityriasis rosea. External irritants—*e. g.* the wearing of damp, ill-ventilated clothing, damp rooms, and the existence of a humid atmosphere—have been from time to time offered as explaining the genesis of the disease. Lassar regarded the wearing of new undergarments as a probable cause. A recent case ander my own care gave a very convincing narrative of this possibility, and the distribution in the vest area, which has been described by Adamson as the usual site of the disease, aids the illusion—if it be an illusion—that the condition of the vest may have something to do with the causation. That there is a seasonable incidence of the disease seems probable, but there is no agreement as to the season. Gibert, we have seen, regarded it as commoner in the hot season. Moingeard, out of 56 cases collected by him in 1889, noted its occurrence 35 times—*i. e.* 63 per cent.—in the spring (April, May, June). Szaboky, in a series of 119 cases, thought there was no evidence of seasonal variation, but, examining his cases, there is a certain preponderance in the cold months; thus, he cites 28 per cent. as occurring in "autumn," 31 per cent. in "winter," and 30 per cent. in the "transition" between hot and cold weather. In my own series of cases, in 174 of which I have notes, there was a curious rise in frequency in the months of July, October, and December, and the spring (April, May, June) offered the lowest frequency in the series. I append a chart, showing the curve for each month. My statistics support Szaboky's experience of a certain preponderance in the latter half of the year.

The views of causation hitherto examined have regarded Pityriasis rosea as a disease *sui generis*; we have noted that Gibert described it as merely a stage between Pityriasis simplex and Pityriasis rubra, and a similar view, which would consider Pityriasis rosea as a "*fait de passage*," or intermediary link between other scaly inflammatory diseases, such as Psoriasis, Psoriasiform parakeratosis, Pityriasis rubra, is advocated by Brocq, by Darier, and others. In this connection, and as rounding off the consideration of ætiology, I may refer more in detail to the paper I have already quoted by Du Bois. This writer investigated three cases, which were clinically regarded as respectively (1) Pityriasis rosea, (2) Pityriasis circiné et marginé of Vidal, and (3) Psoriasiform parakeratosis of Brocq. He advises careful handling of the scales, which are to be lifted off by inserting the blade of a very fine scalpel, the scale being placed on the slide, with its external surface downwards on the glass, washed with ether-petrol, and so examined without any crushing or teasing. In the scales of all three cases Du Bois claims to have found spores of a similar type. No mycelium was found, nor could the organisms be stained or be grown on any culture medium. They were about 5 μ in size, and situated about the follicular and glandular orifices. Du Bois regards them as cryptogamic, and proposes to call them, in honour of Vidal, whose ancient and sometimes derided observation is thus confirmed anew, by that master's suggested title, "*Microsporon dispar.*" Du Bois claims to explain the uniform failure which has met so many other observers in their attempts to demonstrate the parasite

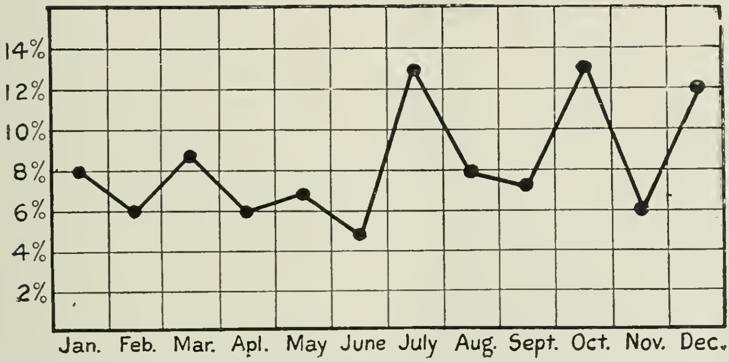


Chart showing the monthly distribution of Pityriasis rosea, as observed in the Skin-Department of St. Mary's Hospital in the period 1903–14.

in the scales, by the suggestion that these observers have been too violent in their methods of removing the scale, which must, in fact, be very gently performed. Du Bois' parasite has been demonstrated in Pityriasis rosea by other observers, notably by Covisa and Nékám.

By the kindness of the latter teacher, appearances very like those figured by Du Bois were demonstrated to me in his clinic in Buda-Pest, and he has sent me a slide showing the same features which I have seen myself this afternoon when I received the slide, but which I am unable to demonstrate this evening, as I have brought a section in which the demonstration is much less easy than in a second slide which I have omitted to bring, but which I hope to show the Section on a future occasion. I have made repeated attempts myself, following the technique prescribed by Du Bois, but have failed to find the bodies which I was shown in Prof. Nékám's clinic, and which I have seen in the section he sent me. Du Bois' observation, if it can be regarded as established, produces a certain feeling of insecurity in the minds of those who have hitherto supposed that Pityriasis rosea was a specific disease. If it be true that the same organism is responsible for the causation of Pityriasis rosea, and a clinical entity in many respects so dissimilar as Brocq's Parakeratosis psoriasiformis, we shall have to revise our ideas upon the relations subsisting between these diseases; and it may come to pass that Brocq's views as to the essential similarity of a very large number of diseases usually regarded as completely dissimilar may really be shown to be not so fantastic as they appear. The weird graphic presentation which Brocq draws up, indicating intermediate stages as connections between Pityriasis rosea, Psoriasis, Parapsoriasis, some forms of Lichen, Seborrhoids, and even Mycosis fungoides, are familiar to you all, and have hitherto met with little acceptance.

Age and sex-incidence.—Thibierge, in his excellent description of the disease in the *Pratique Dermatologique*, speaks thus dogmatically as to the facts under this heading: "It is well known that the disease occurs chiefly among young subjects between 15 and 35, that it is rare after 35 or 45, and still more rare before the age of 15; that it is more frequent in the female than in the male sex in the proportion of two to one. These are statements which are of the nature of platitudes" (*quelque peu banales*). Taking the age-incidence first, I would remark that an analysis of my 146 personal cases, exclusive of the material at the Children's Hospital, does not agree with Thibierge's experience. In the percentage chart which I have drawn up, it will be seen that the curve rises highest in the quinquennium 5 to 10 (22 per cent.); and that 44 per cent. of my cases in a mixed clinic of adults and children occurred under the age of 15, which Thibierge regarded as commonly the youthful limit of the disease. My youngest case was aged 1½, and my oldest 64. Crocker says, "one third of the cases are in children"; he had a case at 7 months, and at 70 years, and these, as far as my reading goes, are respectively the youngest and oldest ages recorded. In Szaboky's series, which comes next in number to my own, 87 out of 119 cases occurred between 15 and 40. In Moingeard's series of 56 cases, 41 occurred between 15 and 35; Thibierge's article is probably largely based as regards its statistical statements on this analysis. The sex-incidence is equally a matter of controversial statement. Thibierge follows Moingeard in his figures of two females to one male. Adamson, comparing 45 cases, gives the same ratio. Szaboky makes the exactly opposite statement; in his 119 cases 67·2 per cent. occurred in men, which is very nearly two males

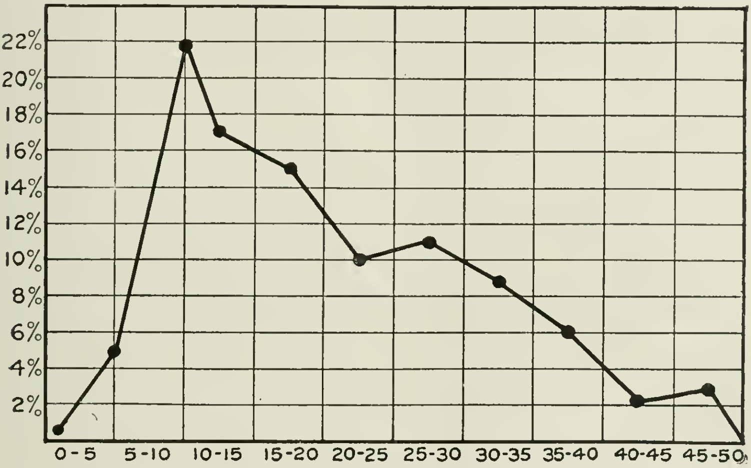


Chart showing the age-incidence of Pityriasis rosea, in quinquennia up to fifty years, as observed in the Skin-Department of St. Mary's Hospital in the period 1903–14.

to one female; he sums up his opinion that "the disease occurs mostly in adult men." Tandler's experience confirms Szaboky; he found in a series of 14 cases, 10 men to 4 women. Of my own 174 cases, 89 are females and 85 males, so that my experience agrees with Crocker's, who could find no sexual preponderance. An inspection of the statistics of various writers leaves the impression that the disease is becoming more frequent in England, and that it is enormously more prevalent in some countries than in others. Crocker's statistics, which were published in 1893, and based on an analysis of 10,000 hospital patients and 5000 private patients, gave for the former group 4 per 1000; Adamson, in 4000 hospital patients, had 45 cases of Pityriasis rosea—*i. e.* 10·1 per 1000. My statistics for hospital patients (1903–14) gave 6·7 per 1000 in a mixed clinic, 4·7 per 1000 in the Children's Hospital. Brocq also notes the increase in frequency of this disease in France. In Nékám's clinic in Budapest an analysis of 100,000 general skin cases gave, I am told, a prevalence of about 40 per 1000 of Pityriasis rosea, which contrasts strangely with some statistics of the American Dermatological Association for the years 1878–87, quoted by Stelwagon: In a collection of 123,746 cases of general skin-disease, Pityriasis rosea (entered as Pityriasis maculaté et circinate) occurred only 70 times—*i. e.* 0·57 per 1000.

I suppose most of my colleagues will agree with me that the diagnosis of Pityriasis rosea is rarely made by the general practitioner, and it is certainly desirable that the prevalence of this disease should become more widely recognised. Its clinical features are so conspicuous that mistakes are the less excusable! I do not propose before this audience to give a detailed description of the clinical features, but it will perhaps be not without advantage if we compare individual experiences on certain aspects of the disease.

The primitive patch.—Cases as convincing as Brocq's instance, described by him in 1887, are certainly rare in my experience. In that instance the patient was seen by Brocq himself whilst having a single patch which doubled in size in a few hours; it was treated for a mycotic affection, although the possibility of Pityriasis rosea was noted at the time; this patient developed the general eruption from eight to ten days later, when he was again seen by Brocq. I have sometimes succeeded in satisfying myself, apart from the history given by the patient, that one of the patches was larger and, therefore, probably considerably older than the others, but my own impression is that one gets this history and these facts comparatively infrequently. Douglas Montgomery, analysing thirty-eight personal cases, makes the somewhat contradictory statement that "in all probability most cases begin with the primitive patch described by Brocq, but that it is the exception to find the primitive patch or any history of it." Szaboky, in the statistics quoted, found it in 50 per cent. of the cases. Weiss, in a smaller series of 14 cases, noted it only twice. In my own series of 174 cases it is recorded only nineteen times. When I have met with it the intervals between the appearance of the patch and 'the general invasion have been very irregular, ranging from two to fourteen days. Moingeard had a case with six weeks' incubation period. The size of the primitive patch may be very large; in a case reported by Allen it occupied half the chest-wall. It is frequently as large as a child's hand (Jadassohn). The primitive patch is said by Brocq to occur most usually about the waist-line, on the front of the body, but he himself discusses the probability that the initial lesion frequently comes out upon the back, and so escapes the observation of the patient. The position of the primitive patch was oddly one-sided in the most complete statistics on this subject, those of Szaboky, who found it, as I have said, in 50 per cent. of his cases, and in these in 77 per cent. of the number it occurred below the left clavicle, in 11 per cent. under the right clavicle, in 6 per cent. on the thigh, and in 6 per cent. over the sacrum. This writer also describes prodromata, such as sore throat, headache, feelings of lassitude, shivering and pyrexia, quoted by him in 50 per cent. of his cases. I have the personal impression that there is perceptible general enlargement of glands in a majority of these cases.

Character of the lesion.—Two types of lesion, the macular and the circinate, may be present, either co-existing, or the eruption may be confined to one or other types. We have noted that Gibert wrote his description without apparently having seen the more prevalent variety in which the lesions are annular; one of the most characteristic features present in even early stages of the disease is the wrinkled surface of the scale covering the papules. It would appear that the scale is very loosely attached to the skin, and it may be readily lifted off with a fine scalpel. Brocq describes some special features as being present when the scale is removed (*grattage méthodique*). In its evolution the initial vivid pink colour rapidly and progressively fades, leaving as a rule a light buff tint, but sometimes, as in a case shown by myself at this Section, the tint may be quite dark, almost a walnut brown. I have met with only one other such case of deep brown pigmentation.

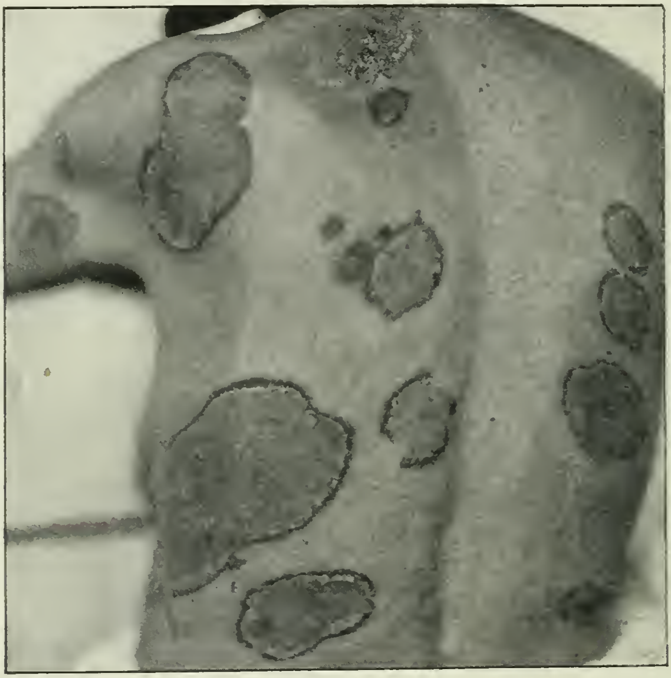
Persistence of the lesion.—We have seen that one of the most important characteristics mentioned by Gibert was the spontaneous disappearance of the eruption within a period of two months. Most writers accept this limitation as the rule, but it may be exceeded in exceptional cases. Vidal regarded the duration of his eruption, which was about six months, as negativing the possibility of that eruption being Pityriasis rosea. This would not be regarded as a fatal objection now. Several cases have in fact been recorded with a longer persistence than this. Hallopeau had seen a case which persisted for four years; Fournier is quoted as having one of similar duration, but I have not traced his original statement; Jenneson records a case lasting six months; Phillips saw a persistence of nine months with a subsequent recurrence. Bunson records a case "lasting several months." Crocker had a case lasting longer than six months, and several of three or four months. A consideration of my own statistics shows that in three instances the eruption disappeared within two weeks of its commencement; in several instances within three weeks; a very usual duration was five to six weeks; in one instance active eruption was present for five to six months, and in another for three months; in both these the type of lesion was large, and recalled Vidal's cases in their clinical aspect as well as in their unusual persistence. Douglas Montgomery, in a prolonged observation of seven cases, had the following experiences: In one case a persistence of one week, one case two weeks, one case three weeks, one case four weeks, one case five weeks, one case six weeks, and one case three months.

Recurrence of the disease.—Thibierge's original observation of the extreme rarity of this feature is confirmed by general experience. A few isolated instances are recorded. The most striking is that of Allen, who claims to have seen it recur seven times in the same patient, a man of alcoholic habits, in whom the recurrency was associated with his relinquishment of alcohol as the result of New

Year resolutions of sobriety. Sherwell saw it twice in the same patient in successive pregnancies. Szaboky mentions a case in which the eruption persisted for six weeks, got completely well, and a few days later a fresh eruption appeared which persisted for five weeks. Phillips had a case which showed patches of Pityriasis rosea nine months after a previous attack. Fiocco and Lefron are quoted as having had instances of recurrences, but I have been unable to trace their original statements. I have had no personal experience of recurrence.

Distribution of the general rash.—The large majority of cases show the greater part of the eruption on the trunk, and it is an old and true observation that the rash generally begins about the neck and spreads downwards to involve the trunk. More uncommonly the extremities are affected, but seldom beyond the level of the hands on the upper extremities and the middle of the thigh in the lower extremities. Cases of anomalous distribution are not infrequent. The face is, on the whole, seldom affected, but I have seen the rash begin upon the face, and Photinos reports a case in which the eruption was throughout restricted to the face and neck. I have seen a distribution confined to the thighs, and also a strictly unilateral eruption on the right hip, right buttock and right thigh. Szaboky reports a similar instance of unilateral distribution on the left side of the body. The same author saw the eruption once on the eyelids. He says that it never occurs upon the hands or feet, but Moingeard reported it on the backs of the feet, and in a case reported by Stowers it was noted on the face, hands and feet and whole surface. Colcott Fox saw it on the dorsum of the hands, and Bunch showed a case with the vague description that the rash was "all over the body." Colcott Fox reported a case of probable Pityriasis rosea on the fingers and toes and palms and soles, with vesication. In a recent case of my own, in a very acute eruption, the whole surface was involved except the hands and feet. I have seen the eruption only once on the penis, and believe this to be rare; it occurred in a man, aged 33 years, who had deeply pigmented patches on the penis and elsewhere, synchronous with the more usual pink patches.

Anomalous varieties of the disease.—Vidal's cases of Pityriasis circiné et marginé, accepted by Besnier and most subsequent authorities as examples of Pityriasis rosea, constitute a rare but well-defined variation chiefly characterised by the largeness of the patches and the duration of the disease. Darier describes a very rare type with enormous plaques, which he calls Pityriasis gigantea. I have never seen this variety, but I am obliged to Professor Nekam for the accompanying excellent photograph of such a case. Vörner and Hallopeau described a type in which the lesions were much raised and almost urticarial, for which the name Pityriasis rosea urticata is proposed. I believe I have had two such cases, one in a young woman in whom the nearly universal eruption, quoted above, occurred, in whom the itching was intolerable for a month and more, and left much desquamation and staining; another very extensive eruption in a young man, with many follicular maculo-papules, which were very itchy. This case recalled the very anomalous case quoted by Fox, in which the papules were also follicular. Besnier long ago noted the site of the early pityriasis papule as being follicular.



Pityriasis rosea gigantea (Darier).

Histological characters.—I have nothing to add to the excellent description of the histology of the disease published by Darier Hollmann, Sabouraud and others. I have not had many opportunities of getting biopsies in a disease in which it hardly seems justifiable to excise portions of the skin, as the disease itself is of so innocent a type.

Differential diagnosis.—The chief difficulty met with by the medical public outside the ring of specialists seems to lie in distinguishing from Pityriasis rosea a syphilide closely resembling it. It is not, I think, so often mistaken for the roseolar syphilide as for the early and rather rare discoid papulo-squamous syphilide, a fact noted by Douglas Montgomery also. The criterion much insisted upon, that the syphilitic lesion is not scaly, does not therefore quite meet the case. I have been much puzzled within the last two weeks by a case of an eruption in a boy, aged 7 years, in whom at his first appearance I made a note that the eruption was a typical Pityriasis rosea. A week later a change had taken place. Some few deeper-seated and darker-coloured papular lesions had made their appearance, and an examination proved that all the glands were enlarged. The boy gave no history and showed no symptoms whatever of a primary sore, but his blood showed a definitely positive Wassermann reaction, and there was no doubt the eruption was syphilitic. I can recall a similar case in 1906, in which the diagnosis remained entirely doubtful, even although the patient was seen by a large number of dermatologists. The earlier diagnosis of Pityriasis rosea in this case also was replaced by that of syphilis, when a more detailed examination revealed a lesion on the forefinger, which the patient, who was himself an experienced medical man, had regarded as a common wart, but which was probably in reality a primary chancre. Dr. Pringle showed a case at the old Dermatological Society of London, in June, 1900, of a young woman in whom the first diagnosis made by the Society was that of syphilis, but this was revised in favour of Pityriasis rosea a month later.* Wild reports four cases which had been mistaken for syphilis and treated as such. In some of the cases confusion was introduced by the fact that the patient actually had had syphilis. The distribution of Pityriasis rosea is different in some particulars from that of syphilis—it rarely occurs on the face and scalp, and the palms and soles, which are the common positions for syphilis. The grouping of the lesions in the direction of the ribs is striking in Pityriasis rosea, and does not occur in syphilis. In the older patches of Pityriasis rosea, a characteristic buff-coloured crinkling of the skin "like cigarette paper" is often observed. There is less infiltration in the case of Pityriasis rosea than in syphilis. The initial patch of Pityriasis rosea, upon which so much stress is usually laid in its description, is more often absent than present, so that the help it affords in diagnosis is not great. At the present time of course a state of hesitation would be solved by the result of a Wassermann test, so that the clinical differentiation becomes less important. From ringworm Pityriasis rosea can usually be distinguished at sight by the fact that the eruption of the latter is much more extensive than the eruption in ringworm, and microscopically by finding fungus. The presence of mycelial threads characteristic of ringworm would probably be regarded by all modern writers as conclusively negative of Pityriasis rosea. I have mentioned a case of my own shown at the old Dermatological Society of Great Britain, in which lesions of undoubted ringworm co-existed with lesions of undoubted Pityriasis rosea, fungus being found in the former and not in the latter. I have had two cases in children in whom Tinea tonsurans was present simultaneously with Pityriasis rosea; the absence of fungus in the lesions of the latter and cyclic evolution negatived the possibility of a diagnosis of Tinea circinata. From seborrhœic eczema the best criterion probably is the finding of the bottle bacillus in the scales of seborrhœic eczema, and its absence in the scales of Pityriasis rosea. The distribution of seborrhœic eczema is usually different: the site of election for the latter is the mid-line of the body; the site of election for Pityriasis rosea is rather on the flanks. The scales in seborrhœic eczema are more greasy in feel and the lesion is usually yellowish rather than pink. Moreover, the scalp and face are frequently implicated in seborrhœic eczema and very rarely in Pityriasis rosea. I have seen mistakes made in diagnosing a rather annular type of Lichen planus for Pityriasis rosea, and, again, a somewhat indefinite eruption of psoriasis mistaken for pityriasis rosea.

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* *Brit. Journ. Derm.*, xii. pp. 246 and 296.

Treatment.—I notice that Dr. Adamson, in his masterly survey of this disease in Allbutt's *System of Medicine,* says that "it is generally agreed that a cure can be hastened by local treatment."

Personally, I am not persuaded that it is any more possible to shorten the period of activity of the rash of Pityriasis rosea than it is to abort the eruption in the specific fevers. With so variable a course in the normal evolution of the disease as is admittedly met with in Pityriasis rosea, it is rather impossible to gauge the effects of treatment. I am entirely in agreement with the desirability of mitigating the irritation, which is sometimes so distressing a symptom, but I agree with Douglas Montgomery, who found itching present only six times in thirty-eight cases, that it is not common, and, at any rate, I am not convinced that any medication, internal or external, shortens the duration of the disease. Opinion is extremely divided on this point. Crocker, in 1893, expressed the view that treatment was unnecessary, but later in life apparently regarded salicin, given internally, as a specific for this disease. Allan Jamieson recommends with equal confidence Condy's fluid baths, followed by inunction of an ointment consisting of 3 to 5 per cent. salicylic acid in vaseline.

The *theories* of *causation* may thus be summarised :

(1) The disease has been ascribed to a parasite, identified with the parasites causing ringworm, by Hebra, Kaposi, and some later members of the Viennese school. This view may be regarded as obsolete.

(2) The disease is ascribed to an unidentified parasite, cryptogamic in nature (Vidal, Du Bois, Covisa, Nékám, and others).

(3) The disease is regarded as being of the nature of a specific exanthem, with a special incubation period, a period of evolution, and a period of decline. It is a disease *sui generis*, with its nearest analogies among the specific fevers (Moingeard, Thibierge and others).

(4) The disease is not *sui generis*, but is a stage (*"fait de passage"*) between a number of inflammatory scaly diseases, such as psoriasis, Pityriasis rubra pilaris, and psoriasiform parakeratosis (Brocq, Darier).

(5) The disease is the cutaneous reaction to a toxæmic absorption, and may be associated with gastric dilatation, intestinal disorders (Jacquet, Feulard, etc.), indicanuria and peptonuria (Fiocco), the puerperal state (Sherwell).

(6) The disease is caused by irritants, such as damp, ill-ventilated garments (Lassar, Kromayer, Hutchinson).

Some questions which I think may be profitably set for discussion are:

(1) Is Pityriasis rosea a disease *sui generis?* and, if so, what is its nature?

(2) Is the "primitive patch" sufficiently frequently noted to justify its retention as an important element in diagnosis? What is the general experience as regards the time which elapses between its appearance and the wider invasion of the body?

(3) What is the general impression of the meeting as regards frequency of the disease? The age, season, and sex-incidence? The association with glandular enlargement, and general ill-health? The immunity conferred by a single attack?

(4) Have any members observed with any frequency the presence of micro-organisms which could be regarded as pathogenic?

(5) What is the average duration of the disease, and can it be modified by treatment?

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Dr. Leslie-Roberts (Liverpool) said that in approaching a subject so obscure as this, he thought the first thing to be aimed at was the clear separation of the essential characters from the non-essentials. In his view, there were three characters which could be called essentials. First, there was the rhythm in the development of the disease, which was somewhat remarkable. It progressed by leaps—*i. e.* a plaque came out, and was followed by a latent or negative phase, during which no eruption appeared. After a short interval there was another outbreak, followed by another rest, and so on. In other words, the rhythm was periodic, not continuous. Next, it had a cyclical course. It naturally tended to spontaneous recovery—a very important fact. The third essential was the morbid anatomy. The French school were correct in laying emphasis on the fact that the early development of it took place around the dermal vessels—*i. e.* the perivascular spaces. Perhaps the earliest sign of the disease occurred in the endothelium or the parts surrounding it. Seeing that these were the essential characters, the name "pityriasis" seemed to be an unfortunate one. It was christened in 1860 when the French school was under the influence of the botanists; every disease was then described as if it were a botanical species—a pernicious method which he was glad to say had now been departed from. In no sense was the disease a pityriasis; the desquamation was an accident, the circinate character was of no importance, and that also was an anatomical accident. It was far more closely allied to the toxic erythemata than to the parasitic diseases. Ringed desquamative eruptions on the chest were so common that in all probability, in many instances, seborrhœids and true pityriasis circinata had been confused with Gibert's Pityriasis rosea. In his opinion, the disease should be separated absolutely from the whole group of pityriasis and should be allied to the toxic erythemata.

Dr. Alfred Eddowes said the remarks of the last speaker attracted his attention very strongly. He remembered the case of a woman who, during pregnancy, showed an eruption indistinguishable from Pityriasis rosea, but he then considered it belonged to the erythemata, and named it Erythema multiforme. It occurred during two pregnancies. Recently he saw a young lady who had a violent desquamation, with great inflammation about the skin, affecting practically the whole of the body. Dr. Pringle, who saw the case, and he agreed in the opinion that the patient had been erroneously treated for ringworm. He considered that these cases occurred more in spells of warm weather. A week ago he saw a man who had this affection with desquamation on his arms and face very badly, apparently due to vigorous washing of these parts. There was no rise of temperature, and the patient felt well.

Dr. WHITFIELD said he congratulated Dr. Little on his address, and thought it lent itself particularly well towards marshalling the points for discussion. With regard to the age-incidence, he was sorry that he had not kept tabulated statistics to show the age-incidence, but his impression was that his cases would show a rough agreement with the statistics of Dr. Little. As to seasonal influence, he certainly saw more cases in the winter months. He generally began to see some in November and continued seeing cases up to March, after which they died down considerably as a rule. He was particularly impressed with the fact that in the cold, wet summer of 1912 he saw cases all through the summer. He was under the impression that it was the common opinion of the English school that it was a cold weather disease.

He had searched very carefully for Du Bois' parasite, and in doing so had followed the directions very carefully. The result of this method was to produce a mass of artefacts, and he would especially point out that in the specimen which had been sent to Dr. Little, and which was exhibited, the field was crowded with crystals and all sorts of impediments to making an accurate diagnosis. Dr. Whitfield had used every method of staining known to him and had also employed the dark ground, but in none of the rather considerable number that he had examined had he found any parasite. He was rather sceptical about the large parasite, which could be seen neither in potash nor by staining, and which could only be found by using a method especially likely to produce artefacts which might be mistaken for parasites.

With regard to treatment, he had been brought up to believe that treatment did not modify the course of the disease, but he was now quite confident that in most cases a tar lotion considerably shortened the attack. He had also tried sulphur ointment, and he believed most of his colleagues would agree with him in saying that this did not shorten the attack, but rather aggravated the symptoms. He might point out in passing that this was very unusual if the disease was due, as claimed, to a superficially situated cryptogamic parasite.

He regarded the disease as a distinct entity, though other diseases, such as so-called seborrhœic eczema, were often confounded with it. The diagnosis might here be easily made by staining scales. The photograph labelled "Pityriasis rosea gigantea," which had been handed round, was, he thought, not Pityriasis rosea at all, but a large marginate erythema.

With regard to the primitive patch, he agreed with Dr. Little that it was not so often present as was formerly believed. He thought that they all asked for it so carefully that they obtained a positive history whenever it had been present, and sometimes suggested it to the patient and obtained a history of it when it had not been there. He had seen the very beginning of the attack in one case and he thought this was uncommon, as one generally did not see the case until the eruption was almost fully out. In this case the patient was a medical man, and he consulted him because he thought that he had pediculosis pubis. There were a good many No. 5 shot-sized papules scattered over the pubic region and on the inner sides of the thighs, but after a prolonged search he was unable to find nits or pediculi, and he therefore asked the patient to come and see him again in a few days. This the patient did, and he was thus enabled to watch these papules develop slowly into patches and rings and finally become a typical Pityriasis rosea.

With regard to infection, he had seen two cases in mother and daughter, but the history was not sufficiently accurate as to dates to allow any conclusion as to contagion to be drawn from it. On one occasion only had he seen a second attack, and that was in a middle-aged man who had consulted him twice with an interval of two years between the visits, and on each occasion he had made the same diagnosis of Pityriasis rosea after careful examination, scale staining, etc.

He would draw attention to two points as regards the clinical appearances. The first was that there was always some and often considerable urticarial reaction at the edge of the lesions. The scaling, with free edge pointing inwards, did not extend to the edge of the lesion but was always surrounded by this zone of urticarial swelling, which gave a sense of resistance to the finger and caused the faulty diagnosis of syphilis. The second was that extravasation of blood was often considerable enough to leave marked pigmentation, and he was sure Dr. Adamson would remember the case recently shown as a case of anomalous pigmentation, in which both Dr. Adamson and he had made the diagnosis of pigmentation after Pityriasis rosea.

Since salicin had been mentioned he might instance the case of a colleague who had been treated for a long period with large doses of salicin, and although it did not interfere in the least with the activity of the disease it interfered considerably with the health of the patient.

Dr. Agnes Savill said she had had about thirty cases of the disease. She found the seasonal incidence was markedly at the end of January and during February. On looking over her case-books she was surprised at the number who sought advice in February; and such cases were expected at hospital about that time of year. The range of age of her cases was eleven months to over fifty years. Indicanuria was an indication which she found of little use. She had frequently found it in association with those nerve conditions wrongly termed "psychic." Indican was present in so many skin conditions that she was almost surprised when she did not find it. She had been glad to hear Dr. Whitfield speak so strongly with regard to itching, because text-books said either that itching was absent or was of no importance, whereas most cases complained bitterly about the terrible itching. She had had two cases such as Dr. Whitfield described, with marked urticurial lesions underneath the pityriasis, persisting, in spite of treatment, for two or three months. She was strongly of opinion that treatment did cut short the attack; but it was difficult to prove. Once she had had two wide-spread cases at the same time, identical in character, which she had treated alike; but while in one the attack was limited to a fortnight, the other went on for nearly two months. Still, the one which got better quickly had gone to bed, and carefully followed all directions, whereas the other patient had persisted in going about. She did not think a severe case could be treated satisfactory while it was ambulant. She always adopted Norman Walker's treatment, permanganate baths once or twice a day, at the beginning, and a mild mercurial ointment. Severe cases, with the body practically covered, cleared up under that treatment in a fortnight.

Dr. ADAMSON said he would endeavour to confine his remarks to the five points set down by Dr. Little for discussion.

With regard to Question 2, he confessed to a weakness for the primitive patch; it was present in about 90 per cent. of the cases, and he thought there was a very definite period of time between the primitive patch and the general eruption. That interval he considered to be about ten days.

In answer to Question 1, he considered Pityriasis rosea was a distinct disease. It had very definite features, one of them being the primitive patch, and another the very characteristic distribution—namely, on the chest, a little way on to the shoulders, and a little way on to the thighs. The lesions themselves were characteristic, and so was the course of the disease. The lesion, he agreed with Dr. Leslie Roberts, was a patch of erythema. It desquamated from the centre, so that in a fully developed patch there were three zones: a central zone, a little yellow and wrinkled; then a ring of desquamation, with the edge of the peeling skin inwards; and beyond this a narrow margin of erythema. In many cases it was almost or quite urticarial.

With regard to the course of the disease, the condition disappeared, if left alone, in from five to eight weeks as an average; sometimes longer.

It had been suggested that Pityriasis rosea might be not a disease in itself, but something intermediate between Psoriasis and Seborrhœa corporis. He thought it was a pity to confuse those three diseases—Pityriasis rosea, Psoriasis, and Seborrhœa corporis—simply because they were scaly: that was going back to the period alluded to by Dr. Leslie Roberts, when the diseases were classified according to their botanical characters. There were distinct differences between the diseases named; in seborrhœic dermatitis the primary lesion was a follicular papule or immature pustule at the mouth of a hair-follicle; it was of parasitic origin, and easily cured by mild sulphur applications. A patch of psoriasis was scaly all over, not only at the edge like Pityriasis rosea, and it had a quite different distribution, attacking the nails, scalp, and flexor surfaces, and a quite different course with tendency to recurrence. He did not think there was any reason for regarding Pityriasis rosea as a phase of psoriasis or seborrhœic dermatitis.

With regard to the frequency of the disease, from his records during the last ten years he did not think it had varied much; it came to almost exactly 1 per cent. of all the skin cases every year. The proportion of private cases was somewhat higher, because the total of hospital patients was swelled by a number of impetigos and ringworms.

The age-incidence of his cases varied from two to sixty years, the commonest age being between fifteen and thirty.

In the matter of seasonal occurrence, he thought it very erratic; in some years most of the cases would come in the months of July and August, and in another year in the winter months. He had seen quite a number of cases since Christmas, and there seemed at the present time to be an "epidemic."

In the matter of sex-incidence, there seemed to be about two females attacked to one male. He had never found any marked alteration in general health in those who had the disease, and he had not seen a second attack in any patient. He also had searched for micro-organisms in these cases, by many methods, but had never found any.

From the practitioner's point of view, the importance of this disease was that it was always mistaken for syphilis; what troubled the patient most was the intense itching which was often present. He regarded salicin internally as of some use; under its influence the itching stopped, and he thought that the eruption cleared up more quickly than when the patient was left without treatment. He usually prescribed emollient baths and ointments or lotions locally to relieve itching.

Dr. DOUGLAS HEATH wished to relate an experience he had in one case, which developed very acutely in a young lad who had been supplied with a fresh flannel vest to run in a race. Two days later, an eruption, almost comparable to that of scarlet fever, developed, which was made up of very large red patches the size of a sixpence or a shilling. These desquamated in the way typical of Pityriasis rosea—almost a diaphragmatic desquamation—with edges pointing inwards, which he regarded as a far better test of the disease than anything else. In much the same way the desquamation of scarlet fever differed from practically every other form of desquamation in being lamellar. In Pityriasis rosea after a few days there was the fine thin scale which contained no organisms; that stage was far more characteristic than the eruption when first seen. His experience agreed with that of Dr. Adamson. He had not kept statistics, but in his practice the warning patch was very common, and had often been the size of a shilling. In about eight or ten days the general eruption appeared. He had found that local treatment benefited the disease considerably. He thought its generalisation was so similar that it was largely mistaken for that of seborrhœa. All seborrhœa did not generalise in the same way; sometimes it was very acute and ill-defined, as one might now and then also see in cases of ringworm. He thought many of the large statistics in clinics were due to the inclusion of cases of this feebly developed seborrhœa. He was on his guard against labelling an acute seborrhœa Pityriasis rosea. He had seen numerous initial patches of seborrhœa followed by generalisation. Sometimes a very small patch in the middle of the sternum, when a boy got overheated (and his experience was that it was commonest in boys at the indiscreet age), was followed by this generalised seborrhœa. In the same way the generalisation of eczema often followed a single patch.

In treatment he did not use strong sulphur ointment, as in many people that produced dermatitis; but such a parasiticide as weak ammoniated mercury ointment or weak salicylic acid. Acute seborrhœa did very well with 10 gr. to the ounce of salicylic acid ointment, and he thought attacks of Pityriasis rosea were also cut short by it. In seborrhœa the head was commonly affected, but in Pityriasis rosea it was not. The most valuable diagnostic point between one disease and the other was, in his opinion, the method of scaling, which, if present—and it was not in every case—invariably put one on the right track.

Dr. Bolam said that a glance over his hospital statistics showed Pityriasis rosea not to have been at all common, or at least not often diagnosed. The number worked out at about 3 per 1000. It appeared to be a disease of adolescence. In reference to treatment, he wished to emphasise the remarks of Dr. Whitfield; he did not think that sulphur and salicylic preparations had a very great effect, but he regarded tar preparations as very useful. Though it might appear to be drastic treatment, good results were obtained from painting with anthrasol, or anthrasol with acetone. The course could, in this way, be cut short, and the patient could be kept comfortable by ordinary baths.

Dr. MacLeod said that he had felt much interest in Dr. Little's paper, and the queries at the end of the abstract would serve as text for any remarks he had to make.

He agreed that Pityriasis rosea was a disease *sui generis*. With regard to the primitive patch, he had obtained a clear history of it and found it so often that he believed it was usually present.

With regard to the frequency of the disease, in the Victoria Hospital for Children, in which children up to fourteen years of age were seen, the proportion of Pityriasis rosea cases had been about 3 per 1000 during the last four or five years. He had not got the statistics at Charing Cross Hospital, but his impression was that there the proportion was much the same. Apart from seasonal incidence, he found that the cases seemed to come in groups.

He considered that general symptoms were not infrequently present. Here again the matter might be prejudiced by expecting to find things, but at one time he was much under the influence of Dr. Colcott Fox's teaching, and he was much indebted to that gentlemen for what he knew about clinical dermatology. He was often told by patients with this disease that they were out of sorts in an indefinite way, or had a sore throat, or that the neck glands were enlarged.

With regard to the actual cause of the disease, he, like Dr. Whitfield and Dr. Adamson, had tried to find a specific cause in the scales, but without success. For some time he had believed the disease to be a toxic process, and, histologically, some of the lesions were much more like those of Erythema multiforme.

He had found that treatment did shorten the course of the disease, but that it must be of a soothing and palliative type to relieve the itching, which he regarded as a very constant symptom, and that irritating antiseptic applications were harmful. His practise was to use a calamine cream, followed by a bland dusting powder. He had tried salicin in a number of cases, but had not felt convinced that it had any effect on the disease.

Dr. Dore said one of the difficulties in connection with this disease was its diagnosis. This was not so in typical cases, but in aberrant cases the diagnosis from seborrhœic dermatitis and from psoriasis, and even from Erythema multiforme, was sometimes very difficult. He had seen several cases in which there had been not only definite sore throat but also enlarged cervical glands; in two or three cases a definite history was obtained of the patient having taken some poisonous food, such as skate or other fish, immediately before the appearance of a typical eruption of Pityriasis rosea. There were also localised cases, with large patches and dark centres, which he thought were more persistent than the ordinary types.

He agreed with Dr. Whitfield that in many cases the lesions were definitely urticarial, and he considered this as additional evidence for regarding the disease as toxæmic in character.

He had never seen a recurrence of Pityriasis rosea, although a medical man had told him he had had two definite attacks.

He (the speaker) had tried many times to make cultures from the scales, but never successfully.

He considered that soothing treatment was of value; but strong irritant drugs, such as strong sulphur or strong salicylic acid, make these cases worse.

Dr. Pernet was of opinion:

(1) That Pityriasis rosea was a disease *sui generis.*

(2) That the primitive or herald patch was an important feature in diagnosis. It made its appearance in various parts of the body, and would be usually found by looking for it when it had escaped observation by the patient. The time which elapsed between its appearance and the wider invasion of the body was somewhere about a week or so.

(3) That the disease was not so uncommon. No doubt a fair number of cases were not diagnosed, especially mild forms. Others are taken for seborrhœic dermatitis, psoriasis, and syphilis. Sex and age did not appear to call for special reference, but in Dr. Pernet's

experience he had observed Pityriasis rosea more commonly in children and women. He had also seen it in men at various ages. Season appeared to play a part. Just now (January–February, 1914) he had had several cases, both in private and at the hospital. Judging from the latter, there did appear to be a seasonable incidence, but on the other hand it might be fortuitous. Dr. Pernet had never found much in the way of ill-health, but there was possibly an evanescent slight febrile movement in the early generalising stage. He had frequently observed a certain amount of adenitis—post-sternomastoid, inguinal, etc.—and the fauces were commonly congested; in one instance definite sore throat was complained of. Dr. Pernet himself had never seen the disease recur in the same patient. Nor had he heard of any instance in which the patient had communicated the disease to others, though no precautions as to isolation had been taken, or, indeed, recommended.

(4) He had never found fungus, though some years ago he had examined several cases from that point of view. He could not confirm Vidal, nor could he agree with the opinions held by the Hebra-Kaposi school.

(5) The disease usually cleared up in three or four weeks, but it might hang fire and last for several months. He thought that treatment did modify the disease in some cases, and he agreed with the late Radcliffe-Crocker, with whom he had observed cases from this point of view, that salicin was useful, as also local treatment.

Dr. Pernet desired to call attention to a point of some interest. In three cases he had been able to obtain a Wassermann (original test), and it had turned out negative. This confirmed what Boas and others had found. Naturally, if Pityriasis rosea occurred in a syphilitic patient, instances of which he had observed, the Wassermann would probably be positive. In the three cases aforementioned there was no evidence whatever of a precedent syphilis.

MEETING held on Thursday, March 19th, 1914, Dr. J. J. PRINGLE, President of the Section, in the Chair.

Dr. J. J. PRINGLE showed a case of *extensive carcinoma of the face occurring in the course of a Xerodermia pigmentosa treated by a massive* *dose of radium.* The President trusted that he might not be considered as straining his presidential prerogative in contravening a recommendation of his own suggestion by reading an epitomised version of his notes of the case now exhibited. The necessity at the present time for absolute precision of statement and for scrupulous caution in drawing conclusions in all matters connected with the therapeutic use of radium had prompted him to adopt this unusual course. He regretted that he was compelled to present the case to the Section before its completion, but he was forced to do so owing to a sudden and invincible desire on the part of the patient to return to his home.

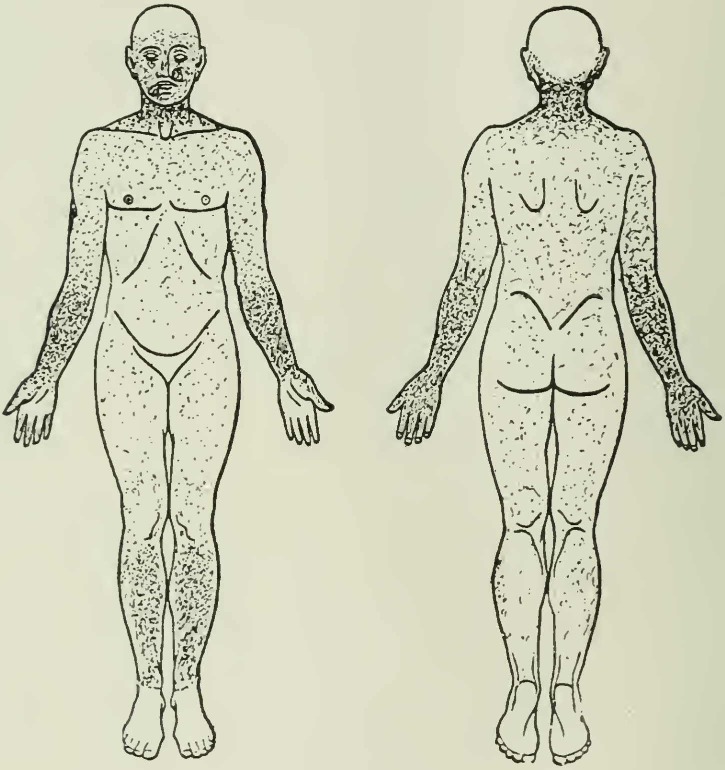
The patient, E. P—, aged 20 years, was a labourer living near Bury St. Edmunds, who was sent to the Middlesex Hospital on December 16th, 1913, by Mr. Robert H. Lucas, of Bury St. Edmunds. He was the youngest of a family of three, all males, and he stated that his eldest brother, aged about 30 years, had always been deeply freckled on the hands and face, but not nearly so severely as himself. His second brother was not freckled at all. No other member of the family was similarly affected, and his father and mother were not family relations. With the exception of his present complaint, the lad had always been robust, earning his livelihood as an agricultural labourer. He was sturdily built, and of average intelligence.

For present purposes it would suffice to state that he exhibited a typical and severe example of Xerodermia pigmentosa, all the cardinal symptoms of which were markedly in evidence—viz. freckle-like pigmentation, patchy atrophodermia, stellate and linear telangiectases, warty excrescences, ulcerations, and ultimately papillomatous and carcinomatous growths. The disease was apparently noticed at about the age of two on the face. The accompanying schema roughly illustrates the distribution of his pigmentary disorder (Fig. 1).

Since its origin the condition had been uniformly progressive, and the patient had been admitted no less than eleven times to Bury St. Edmunds Hospital to have what he called "blisters" scraped from his face. The scars resulting from these operations were especially manifest on the cheeks and below the eyes. He had ectropion of both lower lids and marked pannus of left eye. He was for six months in hospital in the year 1912 and stated that he received X-ray treatment every other day for a period of two months.

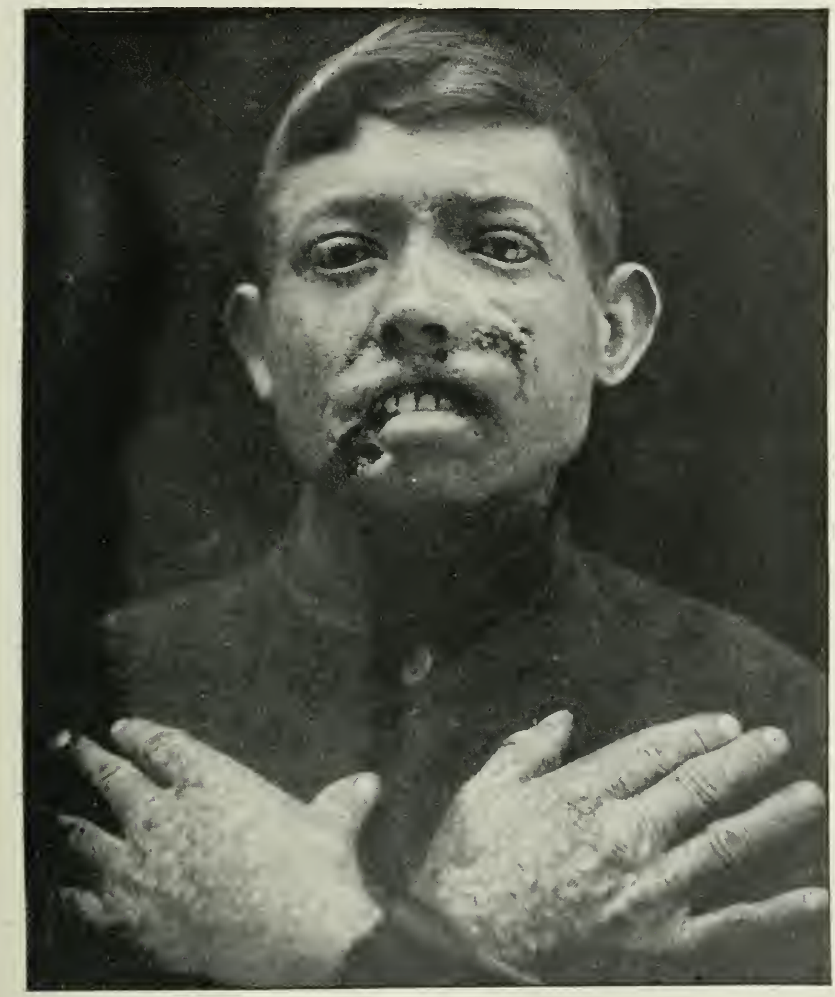
The grave and important feature of the case consisted of two large carcinomatous masses, the bigger of which occupied the region of the left cheek, and its induration extended to and involved not only the whole of that cheek as far back as the zygoma, as far down as the level of the angle of the mouth, the whole of the left half of the upper lip and the left side of the nose—completely blocking the nostril—but also extended deeply to involve a very large portion of the upper maxilla and projected into the buccal cavity between the cheek and the jaw, so that it was impossible for the patient to separate his teeth.

Fig. 1.



There was also a large carcinomatous ulcer with dense, rodent-like margins, involving the right angle of the mouth and the outer half of the right side of the chin (Fig. 2). In face of the nature, localisation, and extent of the disease no surgical procedure appeared to be likely to yield favourable results. It was, therefore, decided to have

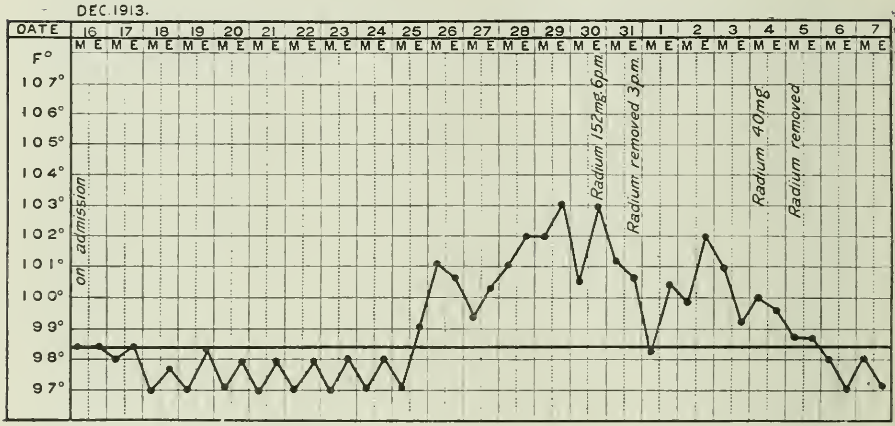
FIG. 2.



recourse to the employment of massive doses of radium, 152 mg. of which were available, especially as microscopic sections of excised portions of the growth had proved to be a squamous-celled carcinoma—a form of malignant disease specially amenable to such treatment.

On December 25th a grave complication occurred in the form of an acute septic infection accompanied by high fever and much malaise, the origin of which could not be determined. The temperature chart indicates a septic process beginning on December 25th, attaining its maximum, 103° F., on December 29th and 30th, and subsiding to the normal on January 5th, despite—or perhaps in consequence of—the procedure now to be described. The condition resulting from this septic attack is illustrated in Fig. 4, which shows that the carcinomatous mass situated in the left cheek and upper lip had broken down and ulcerated extensively so as to produce hideous disfigurement.

Fig. 3.

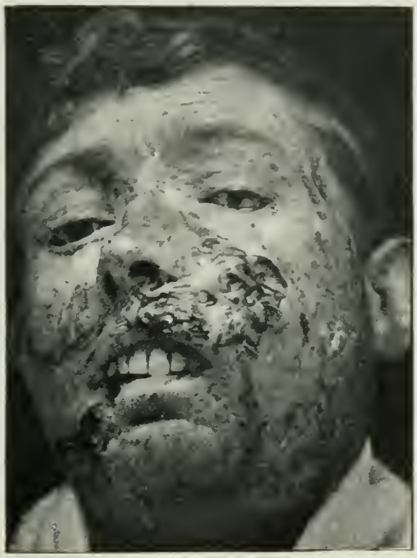


Ulceration also occurred in the buccal portion of the growth as the result of which the mouth was constantly filled with a fœtid discharge.

Notwithstanding these happenings, it was decided after much consideration to insert the entire radium available into the substance of the growth. Consequently, at 6 p.m. on December 30th, three tubes containing respectively 90 mg., 40 mg., and 22 mg. of radium bromide were introduced into the growth, screened in such manner as to permit of the penetration of the gamma rays only into the tumour. The tubes were removed twenty-one hours afterwards. Considerable hæmorrhage occurred at the time of insertion of the tubes, which soon ceased. The patient had a comfortable night, and as early as on the following day it was noted that the density of the infiltration surrounding the ulcerated area had already greatly diminished.

On January 4th a tube containing 40 mg. of radium bromide was placed tranversely on the surface of the growth at the right angle of the mouth and kept in position there for twenty-four hours. This procedure was much less satisfactory than that of the interstitial insertion of the radium into the growth of the cheek; a tube containing 40 mg. of radium was therefore introduced through the substance of the base of the ulcer on the chin on February 12th, the result of which had not yet become mature.

FIG. 4.



The following effects of the radium treatment of the growth of the left cheek were manifest:

(1) There was a great reduction in size of the ulcerated area.

(2) There was almost complete subsidence of the previously existing and wide-spread induration surrounding the growth.

(3) The tumour no longer projected into the mouth; the jaws could be widely opened; the left nostril was quite patent; there was complete arrest of discharge into the mouth, and the finger could be freely introduced between the cheek and the gum, which was apparently healthy.

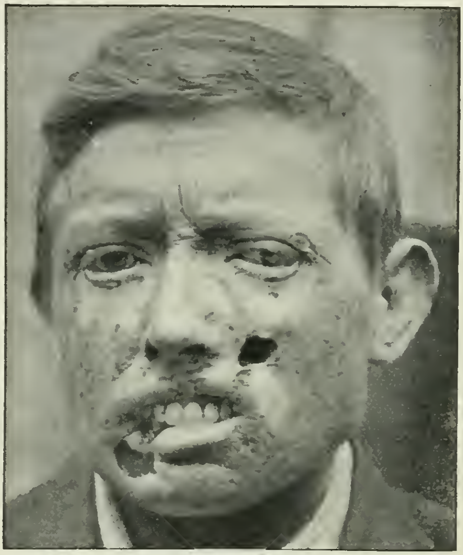
(4) An interesting phenomenon was presented by the remarkable diminution in the abnormal pigmentation all over the irradiated area.

The improvement in the general condition was evidenced by the fact that since the date of his first radium treatment the patient had gained a stone in weight.

It was a matter for regret that deep necrosis involving the outer wall of the antrum of Highmore persisted. The cavity resulting from this was, however, slowly filling up.

The President desired to acknowledge much kindly help and valuable advice from Mr. Clifford Morson, Registrar to the Cancer Department of the Middlesex Hospital.

Fig. 5.



Sir Malcolm Morris congratulated the President on the result of his treatment in such a severe case. With regard to the use of radium, from his own experience he would say there was no question that if the radium were introduced into the very substance of the tumour, so that the radiations could pass through the disease in all directions, a good result was much more likely than if the radium were merely allowed to act from the surface. He had seen several cases in which that was borne out. The risk in some cases was that attaching to introducing the tube too deeply into the tissues, and so encountering important vessels: hence care was necessary. In one case he saw considerable hæmorrhage after the introduction of a radium tube, so that the patient's life was, for the time, endangered.

Dr. J. J. Pringle also showed a case of *Mycosis fungoides à tumeurs d'emblée.* The President was indebted to his colleague, Sir Alfred

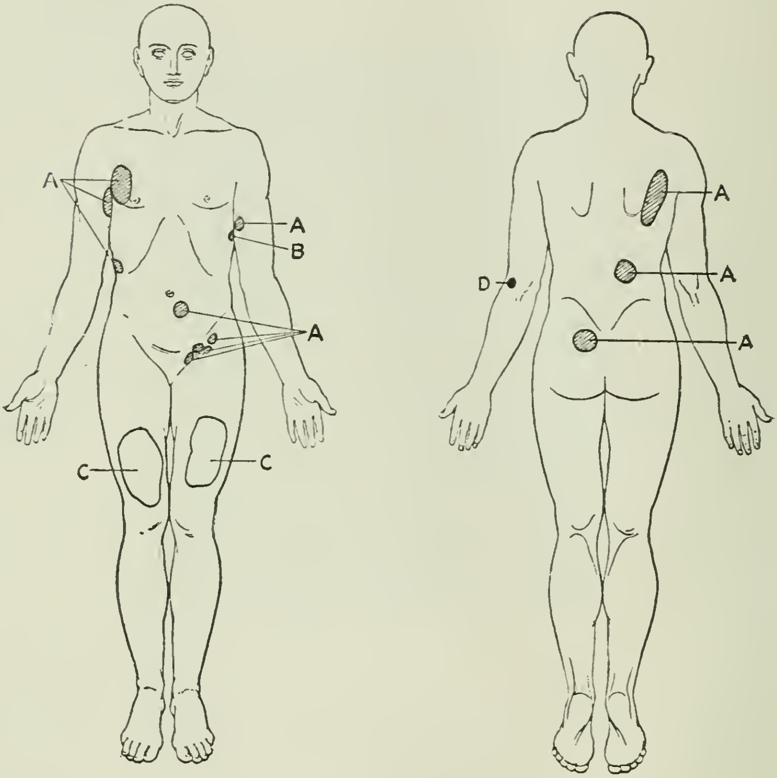
Pearce Gould, for his kind permission to exhibit this case before the Section. It was his original intention to show it as a case for diagnosis, but he ventured to exhibit it now after further study as an example of the rare form of Mycosis fungoides known as Mycosis à tumeurs d'emblée. This opinion was obviously open to criticism.

The patient was a master mariner, aged 48 years, who hailed from Avonmouth, near Bristol. His health until June, 1910, was excellent. In that month he received a severe blow from a barnacled spar on the top of his head, which caused a long and deep scalp wound. The wound received no skilled attention and a growth or "scud" formed at its edge, which at the end of six months had attained the size of a Barcelona nut.

Fifteen months after the accident the growth was said to have been the size of a walnut; he stated that it was then scraped daily for two months, and about Christmas, 1912, lunar caustic was applied. Soon afterwards numerous large swellings appeared behind his ears and in the occipital region of the scalp, which apparently subsided spontaneously. In the early part of 1912, however, numerous horny lumps made their appearance all over the scalp, for which he was admitted to Bristol General Hospital, on May the 30th, 1912, under the care of Mr. Ernest Hey Groves.

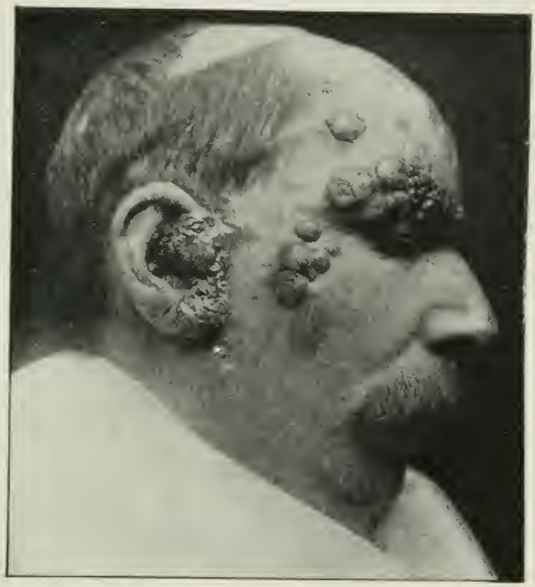
Mr. Hey Groves reported that he then presented an exuberant very septic fungating growth at the vertex of the scalp measuring about 3 in. by 4 in., which he excised widely, afterwards applying skin-grafts. He subsequently repeated a similar procedure on other tumours in various situations on the body and limbs (axillæ, loins, rectum, etc.), on certainly not less than sixteen occasions, and the immediate local result was always satisfactory, although fresh growths continued to make their appearance on previously healthy skin, especially upon the scalp. A few small nodules which were treated by cautery and carbon dioxide snow all recurred soon afterwards *in loco*. Repeated microscopical examinations only revealed the presence of granulomatous tissue with many giant-cells, and no specific micro-organism was ever detected. The Wassermann reaction was consistently negative, and an injection of salvarsan seemed to aggravate rather than ameliorate his condition. The figure depicts the state of the same regions on his admission to the Middlesex Hospital on February 23rd, 1914. The accompanying schema indicates roughly the position of numerous scars resulting from previous operative procedures. The patient stated distinctly that at least two considerable growths on his thighs and one on his left arm disappeared spontaneously. A recent hemispherical tumour dating from December, 1912, and arising abruptly from healthy skin and about the size of half a filbert was present on the outside of the left elbow. A very large portion of the scalp was replaced by sound scar-tissue upon which the growths had never appeared. The recent phases of the disease were represented by very numerous hemispherical projections, the smallest of which were the size of a split-pea. By the aggregation of these, large tuberous masses were formed, which ulcerated, fungated and discharged slightly. As can be seen in the photograph, the largest of the masses were situated in the right supra-orbital region and in the pre- and post-aural regions. There were nowhere present any of the

Fig. 6.



changes, either erythrodermic, lichenoid, psoriasiform, or eczematoid, which could be regarded as a pre-mycosic condition. There was no enlargement of the spleen nor of the inguinal, cervical or axillary lymphatic glands. The patient complained of intense itching in the tumours on the face and scalp. He was in good general condition, his urine presented no abnormality, and he showed neither signs nor symptoms of any visceral disease. Three weeks ago he received three full pastille doses of the X-rays.

FIG. 7.



Although their microscopical and bacteriological examination was not yet complete, the President was at liberty to state that the growths—a large mass of which, conspicuous in the photograph shown, was excised for this purpose—were pure granulomata containing large numbers of streptococci; but apart from these no specific recognised pathogenic micro-organism had been detected in them.

Dr. **PERNET** considered the case was one of Mycosis fungoides d'emblée. He read a paper on a case treated by salvarsan, at the International Medical Congress last year, and stated therein his view that salvarsan apparently aggravated the condition. He had found that patients suffering from Mycosis fungoides frequently had a history of longevity in one or both parents, and he asked if it was so in this case.

The PRESIDENT replied that the man's father died at the age of eighty-three, and his mother in her eighty-second year.

Dr. G. NORMAN MEACHEN showed a *case for diagnosis*, (?) *Dermatitis artefacta*. The patient, a young lady, aged 23 years, was sent to the exhibitor by Dr. Arthur E. Giles, under whose care she had been for severe metrorrhagia, for an obstinately recurring eruption upon the face. In December, 1912, she first noticed a burning and tingling upon the cheeks, and reddened spots would appear which did not, apparently, become blisters, but became "dry and sore." The whole skin of the face would burn after exposure to wind. She had never had any skin-disease, but her mother had suffered from eczema. The hair was normal, and the complexion fair. She had used several different kinds of toilet soaps, but none of an irritant nature. On examination, there were several discrete, rather sharply defined reddish spots, the size of a sixpence, situated upon the cheeks and sides of the mouth. One, in process of formation, was papular, and situated upon the right side of the nose. The areas would last for a few days and then gradually fade, but there was neither bulla formation nor exudation. No scarring, even of a superficial character, was manifest. She had been curetted twice, and she stated that the spots would be better for a time after the operations, and then they would reappear. The exhibitor suggested the possibility of a Dermatitis artefacta, or of a very superficial type of Lupus erythematosus, but he invited the opinions of the members of the Section.

The general opinion expressed by the members was that it was a case of Dermatitis artefacta.

Dr. GEORGE PERNET showed a case of *Angioma serpiginosum*. The patient was a girl, aged 15 years, who was first seen at the West London Hospital on March 3rd, 1914. The complaint was of two years' duration It had begun about the left axilla, and gradually spread down the left arm, the last part involved being the dorsal aspect of the first phalanx of the left middle finger. About the left axillary region there were areas of pale fawn discoloration, something like a Tinea versicolor in appearance, with a certain amount of superficial atrophy. The lesions were originally red and vascular, like those down the left limb, which presented a number of characteristic vascular areas with the "cayenne pepper-like" points described in the cases already published, apparently only some eight or nine in number.

Sir MALCOLM MORRIS said it was desirable to have a full record of the case, because instances of the condition were so rare. The remarkable feature was the way in which the lesions spread towards the fingers. He would like to hear suggestions as to the pathology.

Dr. ADAMSON thought that these cases of Angioma serpiginosum belonged to the group of systematised or zoniform nævi, of which the unilateral verrucose linear nævus was the best-known form. Systematised nævi might be composed of other elements than warty growth. They might be made up of sebacious glands or of pigment or blood-vessels. Examples of each of these forms of "unilateral nævi" had been shown at meetings of the Society by the speaker. The segmental distribution of the vascular tufts in the present case was striking —they occupied a limited area on one side of the chest, stopping short at the middle line in front and behind, and they extended in a band-like manner down the arm. A similar zoniform distribution was described in nearly all the published cases of Angioma serpiginosum. That the lesions were not present at birth, and that some of them faded while fresh ones appeared, were facts quite consistent with the idea of unilateral linear nævus. In the more ordinary type of verrucose zoniform or linear nævus the lesions sometimes appeared at the tenth year or later, and the speaker had shown a case in which when shown several years later the greater part of the nævus had disappeared.

The PRESIDENT was in accord with Dr. Adamson's general conception of the term "nævus," but he thought there was some difficulty in bringing a condition such as the present, which developed and disappeared spontaneously in early adult life, within the category. The point was an extremely delicate one.

Dr. DORE said he could not agree with Dr. Adamson's suggestion, because linear nævus was not an angioma.

Dr. F. PARKES WEBER said that (to the naked eye) in these cases the appearance was similar to that of the congenital finely pencilled or mottled telangiectatic patches which really belonged to the class of vascular (hæmangiomatous) nævi. Some conditions described as "Livedo reticulata" or "Livedo annularis" belonged to the same class. But it would be stretching the term "nævus" very far to include under it cases like that shown by Dr. Pernet, in which the curious linear telangiectatic condition had developed so long after birth.

Dr. EDDOWES said he assumed that Dr. Pernet drew a distinction between this case and cases of spider nævi seen on children's faces. He once attended a family of children, all of whom were liable to bleed very much from these telangiectases when they were towelled roughly—especially after a hot bath.

Dr. PERNET replied that the patient had been under his care only since February 3rd. According to the mother, the eruption began as a bright vascular condition, and then spread gradually downwards. In reply to Dr. Adamson, linear nævus was not usually angiomatous, and he did not consider this case belonged to that category; he would reserve the term "nævus" for congenital conditions.

Dr. GEORGE PERNET also showed a case of *multiple Lupus vulgaris involving skin and mucous membranes*. The patient was a boy, aged 15 years, with a history of two years' duration. There were numerous patches and foci of Lupus vulgaris scattered about the face and limbs, especially the legs. The disease had started on the right arm. The palate and naso-pharynx were also involved. For these the patient had been under Dr. H. J. Davis in the Throat and Nose Department of the West London Hospital. The boy was first seen by Dr. Pernet, in the Skin Department, on January 17th. He had had X-rays previously to this, and was having more. In addition, tuberculin injections were given on account of the mucous membranes. The multiple Lupus vulgaris lesions did not follow measles or other acute exanthem.

Dr. S. E. DORE showed a case of *multiple subcutaneous fibromata*. The patient, a German clerk, aged 28 years, noticed a small lump on the outer surface of the knee four or five years previously. This disappeared, but reappeared eighteen months ago, and at the same time similar tumours formed on the elbows, palms and scalp. The lesions were firm, rounded, painless subcutaneous nodules varying from a pea to a walnut in size. There were four or five on each arm below the olecranon process, the majority projecting visibly, and being freely movable under the skin, but there was a small prominence —possibly of a different character—on the right arm, which was firmly adherent to the bone. In the centre of each palm there was a small group of smaller and flatter nodules, and two or three on the scalp behind the ears. With the exception of one over the head of the right fibula, the nodules were strictly symmetrical. There was no pigmentation of the skin or tenderness in any of the tumours. The patient was apparently in perfect health, and had never had any symptoms of rheumatism, and no member of his family had been similarly affected. Sections of a nodule from the arm showed coarse fibrous tissue, with evidence of slight degeneration in parts; numerous vessels and areas of endothelial and small round-cells.

Dr. Parkes Weber had kindly seen the patient, and had called the exhibitor's attention to a similar, but less extensive, case he had shown at the Medical Society of London in 1907.

The **President** said Fellows would probably remember a case recently shown by Dr. Sequeira, in which nodules were present in the palms seemingly identical with those exhibited, which had been exclusively demonstrated to be neuro-fibromata. Many of them were painless, and he would like to know whether Dr. Dore had excluded the possibility of their identity in nature with Dr. Sequeira's case.

Dr. F. **Parkes Weber** said there was a scattered literature which described "fibrous nodules" about the elbows, etc., sometimes with the suggestion that they were associated with, or allied to, rheumatoid arthritis. In Dr. Dore's case there were, however, also symmetrical nodules in the palms of the hands, resembling, in regard to their position, those sometimes seen in children with "Rheumatismus nodosus," that is to say, the form of subacute rheumatism characterised by the presence of subcutaneous "rheumatic nodules." The situation of the nodules in the palms of the hands likewise reminded one of the fibrous change in Dupuytren's contraction. He did not think the present case could be one of neuro-fibromata or of any kind of neuromata.

Dr. **Dore** replied that he did not think it was possible to quite exclude the presence of nerve-fibres from these tumours, but they were not painful and the sections did not show any nervous elements, although they had not been specially stained for this purpose.

Dr. A. M. H. **Gray** showed a case of *Granuloma annulare with subcutaneous nodules*. The patient was a child, aged 4 years, apparently in good health. There was slight glandular enlargement in the neck. The lesions from which the child was suffering first appeared nine months ago on the buttocks, and had slowly increased in size; subsequently lesions had also appeared on the left knee. At the same time as the earliest lesions a nodule appeared on the back of right elbow, and another on the front of the right shin. The mother stated that these lesions first commenced like those on the buttocks, but subsequently became hard nodules. The lesions on the buttocks and left knee were purplish erythematous rings, varying in size from a pea to a shilling; the larger ones showed central involution; the patches were very infiltrated, and showed a rather irregularly nodular edge. Over the upper part of the right ulna, near the olecranon, was a nodule the size of a pea, of very hard consistence, situated in the subcutaneous tissue and corium; it projected slightly above the level of the surrounding skin, and the skin over it was reddened. A similar and slightly larger nodule was present over the upper part of the right shin; this was more deeply placed, but was fixed to the deep layers of the skin. There was very slight projection, and the skin was not reddened.

The case was shown for diagnosis; the exhibitor was not able to explain the association of the deep-seated nodules with the erythematous rings, and had thought that the lesions might be tuberculides. It appeared, however, that most members who had seen the case had no doubt that it was a case of "Granuloma annulare," and Dr. Graham Little had told him that he had seen subcutaneous nodules present in such cases. He was therefore prepared to accept this diagnosis.

The **President** and Dr. **Adamson** expressed their concurrence in the belief that it was Granuloma annulare.

Dr. A. M. H. **Gray** also showed a case of *Acne agminata with bilateral enlargement of the lachrymal glands.* The patient, a robust man, aged 39 years, had been in good health up to the present time. He had an accident in November, 1913, and was laid up in Woolwich Arsenal Infirmary with a crushed foot. During the second week in December, while still in the infirmary, spots came out on his face, and had been coming out since this date; a few also had appeared in other parts of the body. The spots came out without any pain or irritation, and gradually increased in size and then disappeared, each spot taking about eight weeks to run its course.

When examined the eruption was seen to be distributed symmetrically over the face, the lesions were pinhead to lentil-sized papules, which could at first be felt rather than seen in the depth of the skin, subsequently they become more prominent and purplish-red to brown-red in colour; a few of them showed a small central yellowish point when fully developed, which looked like a small central pustule, but they did not discharge pus or ulcerate; later they might develop a thin transparent scale on the surface, and finally they disappeared, leaving a pigmented atrophic spot. Many of the well-developed lesions if examined with glass pressure resembled closely lupus nodules. To the touch the lesions were distinctly shot-like. The papules were distributed all over the face, being particularly numerous on the sides of the nose, the naso-labial folds, the lower eyelids, the upper lip and sides of the face; the forehead, especially the temples, was affected, and the papules were larger here than on the face; the lesions also encroached on the hairy scalp for a short distance. Lesions were also present on the margin of the ears and in the mastoid regions. There were isolated papules on the upper part of the chest, on the left forearm, on the right thigh, on the penis, and in the gluteal fold. One papule involved the mucous membrane of the upper lip. In none of the papules was it possible to say that they were definitely perifollicular. There was definite enlargement of both lachrymal glands, which had slightly diminished in the last six weeks. There was no enlargement of the salivary glands. There was, however, definite enlargement of the lymphatic glands in the neck.

In other respects the patient showed no departure from normal health. The blood showed no abnormality; urine was normal. The Wassermann and von Pirquet reactions were both negative. The patient had had four children, one of whom had suffered from tuberculous glands, but otherwise there was no history of tuberculosis in the family. There was no history of venereal disease.

One of the papules from the chest had been removed and sections cut. It showed the presence of masses of cell-infiltration in the deeper layers of the dermis; these masses were separated from each other by normal-looking connective tissue. The cell-masses were mostly composed of large pale epithelioid cells with faintly staining nuclei, but lymphoid cells were also present in considerable numbers, especially at the periphery of the cell masses; plasma-cells and leucocytes could also be seen in this region, and numerous spindle-shaped connective-tissue cells were found among the epithelioid cells. Giant-cells were numerous, and many of them had peripherally arranged nuclei. One of the cell groups seen in the section had formed round a hair-follicle, but did not appear to have involved it. Another cell mass had a sweat-duct running through it which was also unaffected. Some of the arterioles in the neighbourhood of these cell masses showed definite perivascular infiltration.

The case was shown, firstly, to obtain the opinion of members of the Section, many of whom had doubtless seen the original cases of Crocker, as to whether this should be labelled "Acne agminata." Secondly, if members agreed that this was so, the exhibitor wished to express the view that the "Acne agminata" of Crocker was identical both in clinical and histological characters with the papular form of "miliary lupoid" or "multiple benign sarcoid" of Boeck and Darier. It was true that Crocker mentioned the fact that suppuration sometimes occurred in "Acne agminata," while this did not appear to be a feature of "miliary lupoid," but in the former it was clearly stated that there was no tendency for the papules to break down into ulcers. In the present case one or two small pustules had been present from time to time, but there appeared to be a secondary folliculitis, and in no case had there been any ulceration or even discharge of the pus. This might possibly account for the slight differences noted in cases described under the names "miliary lupoid" (papular form), "Acne agminata," and "acnitis." Thirdly, there arose the question as to the tuberculous nature of the lesions. In this case the tuberculin reaction was absolutely negative, and this had been found to be so in other cases. It seemed to the exhibitor to be a very important point, as the demonstration of tubercle bacilli and animal inoculation experiments were frequently negative, even in admittedly tuberculous lesions. It was certainly doubtful at the present time whether there was sufficient evidence to class these lesions as tuberculides. Lastly, the case was of interest on account of the enlargement of the lachrymal glands; this enlargement appeared to be inflammatory, as there had been some diminution in size since the case was first seen. The exhibitor had been unable to trace this combination of symptoms in any other recorded case, nor had he been able to find it in association with tuberculosis.

Dr. DOUGLAS HEATH agreed with the diagnosis of Acne agminata; he considered the grouping of papules on the lower eyelid was characteristic of the disease, confirming Crocker's original description. The only two cases of the condition he had had under care were in men of about the same age as this patient, aged about 40 years. They also gave a negative von Pirquet reaction. Inoculation into a guinea-pig, by a pathologist of Birmingham University, gave negative results as regards tubercle. The morphology was the same as that now described by Dr. Gray. The distribution on the eyelids was against other forms of acne, and against ordinary multiple subcutaneous lupus of the face.

Dr. PERNET agreed that this case belonged to the category of Acne agminata, of which he had seen several examples. He had found in some cases that the occupations of the patients led to their perspiring a great deal. This man, he ascertained, was a stoker, and manipulated five or six tons of coal a day. The glare of the fires and heat-rays might account for the inflammation of the lachrymal glands. From the cases he had seen, his conclusion was that it was a sweat-gland trouble. He did not associate these cases with tuberculosis. He had microscopically examined a nodule from a case of Acne agminata some years ago and found the primary and chief change occurred about the sweat-coils, which were disorganised by leucocytic infiltration. Some of the hair-follicles were partially involved also. He had not found any tubercle bacilli.*

Dr. GRAHAM LITTLE recalled a case which he had published in 1908,† in which an exactly similar association had been noted of Granuloma annulare with nodules which were regarded as tubercular. In this case (No. 49 of the series alluded to) a nodule had been excised and injected into a guinea-pig without producing tuberculosis; but the patient had undoubted tubercle, and this had progressed characteristically since then.

The PRESIDENT remarked that the nature of this curious disease was brought up last year *à propos* of a very marked case shown by Dr. MacCormac. He thought the lesions in this case were extremely like small necrosing tuberculides on the extremities as well as on the face. He regretted the name, because the condition was certainly not an acne, as it was not exclusively connected with the sebaceous glands. Neither was it necessarily agminate. He confessed that he still leaned to the idea of it being a toxi-tuberculide. It certainly occurred independently of excessive sweating or of any occupation which caused that unpleasant state. He had recently had a well-marked case in a young lady of good social position, which had been successfully treated by Dr. Dore by X-rays.

Dr. GRAY replied that what appeared to be the main argument against it being tuberculosis was the negative result to various forms of tuberculin reaction. He knew that it was difficult to say how definite or accurate any form of tuberculin reaction was, but considering the frequency with which tuberculin reactions were positive, even in patients who were not the subjects of gross tuberculous lesions, it was extraordinary that, if these lesions were tuberculous, a constant positive reaction was not obtained. Another point against the tuberculide idea was, that though it was possible that tuberculides on the face might show less tendency to break down than when occurring on other parts of the body, yet when these lesions occurred on other parts of the body they took on the same characters as when on the face, and they did not resemble the tuberculides usually met with, say, on the arm. Darier, in his *Précis de Dermatologie*, was inclined to class acnitis with the hypodermic tuberculides. The most marked feature in tuberculides was their tendency to break down, and their tardiness in healing, as well as the fact that they left a pitted scar. When these lesions occurred on the body or limbs they did not do that. This condition usually occurred in robust people, and he did not think sufficient evidence had been adduced to prove that they were tuberculides.

Dr. A. M. H. GRAY also showed a case of *recurrent bullous eruption on the legs*. The patient, a man, aged 53 years, had suffered from lesions of the skin for some twenty-five years. For the last twelve years he had had blisters breaking out on the legs more or less continuously, but, before this, ulcers, not preceded by any blisters, used to form chiefly on the thighs and legs, but also on the upper limbs.

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* Radcliffe-Crocker's *Diseases of the Skin*, 3rd ed., ii, p. 1097.

† *Proceedings Royal Society of Medicine* (*Derm. Section*), 1908.

He was seen by Dr. Radcliffe-Crocker in 1909, and was said to have a tuberculous granuloma on the left leg, 1½ in. by 1 in. in size. He had been subject to enlarged glands in the neck for many years past; they were noted in 1909, and when first seen by the exhibitor about a year ago he had a discharging sinus in his neck from a ruptured glandular abscess, and had also signs of active pulmonary tuberculosis. At the present time the pulmonary trouble was more or less quiescent, no tubercle bacilli could be found in the sputum, and the patient's general health had improved, but he still had enlarged glands in the neck. There was no history of syphilis, and Wassermann and luetin reactions were negative. There were no marked blood changes and no eosinophilia. The patient was found to have numerous large irregular scars on the thighs and legs, a large scar on back of left elbow, and several small pitted scars about the forearms. The large scars on the thighs were superficial, thin, and had a very irregular outline; scattered through these scars were numerous pinhead-sized yellow raised spots. The active lesions at the present time were of the vesicular and bullous type. During a stay of some weeks in hospital numerous lesions had come out; they were mostly of two types, small red pinhead to pea-sized bright red patches, non-infiltrated, becoming vesicular, or large bullæ varying in size from a pea to a walnut, containing at first clear fluid which rapidly became purulent. These bullæ and vesicles dried up and often left behind a pigmented atrophic area.

Histologically the smaller lesions showed marked changes in the vessels of the papillæ and papillary layer of the skin. There was marked endo- and perithelial proliferation and an exudate of fluid and leucocytes which passed through the rete mucosum, and tended to collect in the region of the granular layer of the epidermis, which had been broken up and destroyed in the area affected; a vesicle was thus formed between the horny layer and the rete.

The case was shown with the idea of obtaining an opinion as to the nature of the lesions. The exhibitor wished to make the suggestion that they might be tuberculides, but he was unable to find such cases described, and he had no evidence to go on beyond the fact that the patient was undoubtedly suffering from tuberculosis of a more or less severe type, that the lesions had recurred for many years, and that some of them left definite atrophy. The sections did not suggest tuberculosis, and no tubercle bacilli had been found.

The exhibitor also called attention to a section of one of the old scars on the thigh, showing that the small yellow nodules seen were composed of small masses of elastic tissue just beneath the epidermis.

Dr. DOUGLAS HEATH said that tuberculous patients were particularly prone to lesions of this kind. When lupus cleared up, one frequently found impetiginous bullæ on the areas where the lupus had been. He thought the reason was that in those situations the skin was vulnerable to the inroads of streptococci or staphylococci. Some might be due to rubbing, the infection coming from other centres. He could not see any areas of healed tubercle in this case.

Dr. ADAMSON thought it bold of Dr. Gray to suggest tuberculide in this case, for he did not consider there was any clear evidence to support it. He would have first thought of the scars as those of tertiary syphilis. The other condition on the leg might be a chronic streptococcal infection.

The PRESIDENT said he would not have thought of tuberculosis in looking at the legs of the patient. If it was tubercular it corresponded more closely with the condition labelled in the St. Louis Hospital, Paris, as "tubercular lymphangitis," than with any other type. But it was not accompanied by elephantiasis, which was, he thought, always present in such cases.

Dr. GRAY replied that he had no views as to what the scarring was caused by. He only had the help of Dr. Crocker's diagnosis from the single lesion on the leg. The case reminded him of another which he exhibited as a "(?) potassium iodide eruption," in June, 1912. He had since come to the conclusion that this diagnosis was incorrect, as recurrence had taken place without the exhibition of potassium iodide. The appearance of some of the lesions on the legs were almost identical with those in this patient; there were also marked pulmonary lesions and suppurating glands in the neck, as well as severe nephritis. There were numerous small red spots with central vesicles on the legs associated with other ulcerating lesions. Dr. Whitfield expressed the opinion that they might be tuberculous. He therefore thought tuberculosis might be a definite ætiological factor in this case also. The idea that it might be streptococcal entered his mind, but dressing the lesions with 1 in 4000 perchloride made no difference. He therefore thought it unlikely that the eruption was impetiginous.

Dr. A. WINKELRIED WILLIAMS showed a case of *nodular leprosy*. Patient, a soldier, aged 28 years, was born in India; left as a child; served in Army in India, 1904–05; left India, 1905; served in South Africa, 1905–09. First symptom noted, painless ulcer on knee following knock at football; treated in hospital and took four months to heal. 1908: No prodromal feverish attack. Dark patches on forehead noted in 1910; no fever, etc. Gradual progress to present time. Treated in Army from time to time, but no special internal treatment. Local application of tinct. iodi and told he would soon get well. Knocked knee against motor-car about one month ago; it did not hurt, but a few days later he noticed the ulcer.

Present condition: Protuberance of eyebrows, watering of nose, swelling of ear-lobes; marked infiltration of skin in small nodules of entire face. Profuse nasal discharge containing clumps of *Bacillus lepræ*. Section of nodule from chin. Typical infiltration (microscope); L. cells and bacilli. Cyanotic swelling of hands. Body: Diffuse flattish nodules and areas of pigmentation and brownish-yellow to whitish areas. Pain sense not acute anywhere. Anæsthesia more or less marked on flexor aspect of arms and anterior aspect of lower extremities above and below knee for about one third of thighs and legs. Anæsthesia of arm more marked on ulnar side. Extensor aspect of arm and posterior aspect of leg and trunk, sensation normal.

Dr. E. G. Graham Little showed a case of *Granuloma annulare.* The patient was a little girl, aged 9 years, the daughter of a medical man practising in British India. The eruption had commenced twelve months previously while resident in India, and at the present time there were numerous and characteristic lesions on the right medius and ring fingers, on the dorsum of the right foot, and a small efflorescence about the external malleolus of the same foot, on the leg about the knee on both sides. In addition to the characteristic ringed lesions there were some small erythematous, not ringed patches the size of a threepenny-bit, on the legs of both sides. There was no tubercular history. The child looked pale and somewhat thin.

Dr. E. G. Graham Little also showed a case of *erythromelalgia.* The patient was an elderly woman, with an eruption of the hands and feet, which the exhibitor regarded as possibly of the same class as some cases which had been described as erythromelalgia. She had had for some two years a pronounced redness of the palms and soles accompanied by considerable tenderness and pain in these parts. The colour was a vivid pink, and extended over the whole palm and slightly on to the flexor surface of the wrist, in between the fingers and along their inner and outer surfaces to nearly the dorsal aspect, and covered the whole plantar surface of the feet. There had never been any exudation or exfoliation, and the symptoms had persisted unchanged during the five weeks that the patient had been under observation; she did not have any treatment, either local or general, and had not taken any drugs which could account for the symptoms. She appeared otherwise in fair health.

The **President** said he hesitated to accept the exhibitor's diagnosis of erythromelalgia, as the symptoms were apparently neither very severe nor markedly paroxysmal. Those features existed in all the definite cases of the condition which he had seen. Of course, there might be border-line cases, of which this might be one. He was familiar with the eczematoid condition which persisted in the intervals of the erythromelalgic phenomena.

Dr. **F. Parkes Weber** said he did not think the present case was like those usually classed under the term "erythromelalgia." One reason was that the affection here was localised to the *palms* of the hands and the *soles* of the feet. But he believed some cases owning an arsenical cause had been described as erythromelalgia, in which similar areas had been affected. Probably arsenic could be excluded in this case. A somewhat similar condition might follow the repeated use of salvarsan and neosalvarsan, but not with this sharply limited distribution; in such cases there would be some accompanying general erythema and desquamation. During the "arsenical beer epidemic" there were several cases, he believed, in which a remarkable redness of hands and feet occurred.* One was reminded also of the erythematous condition of the *backs* of the hands and feet in pellagra.

Dr. **Macleod** said that he did not think the case was one of erythromelalgia. He had under his care at present a case of that disease in a young lady, but there the lesions were not symmetrical, and were associated with paroxysms of violent pain. He thought it possible that the affection was of toxic origin, the result of some form of auto-intoxication.

Dr. **E. G. Graham Little** also showed a case of *Dermatitis herpetiformis.* The exhibitor had announced this as a case of "Erythema iris of a persistent type." The patient when first seen had had a circinate erythematous and bullous eruption on the flexor surface of the wrists, which had perfectly simulated Erythema iris, but the history given was that he had had a similar eruption all over the body from time to time during the past four years, with no longer interval of freedom than two months at any time in that period. Since his earlier visit he had developed quite another type of eruption—namely, grouped small vesicles—on the thighs and body, which was typical of Dermatitis herpetiformis. There had never been excessive itching.

The case when first seen had strongly recalled the case of persistent Erythema multiforme shown by the exhibitor to the Section on two occasions and at the International Congress. No very definite diagnosis had been made of this case, and the present experience made the exhibitor inclined to include that case under the category of Dermatitis herpetiformis. Hallopeau had described and figured in the *St. Louis Atlas* (fascicule 10) a case of "Dermatitis herpetiformis en cocarde," which he expressly stated "bore a singular resemblance to Herpes iris of Bateman." He notes the rarity of this type of the affection which bears the name of Dühring. In his case also the subsequent eruption of lesions more characteristic of Dermatitis herpetiformis cleared up all doubts as to its nature.

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* In regard to toxic and toxæmic causes for cutaneous changes of somewhat similar distribution to that in the present case, one might instance the rare condition of gonorrhœal keratosis of the feet and hands.

The exhibitor had at the present time in the wards of St. Mary's Hospital two twin brothers, marvellously alike in person, who had been for several years and were now the subjects of Dermatitis herpetiformis. The facial, corporeal and nosological resemblance of these two young men, who were aged 20 years, was very singular.

Dr. A. **Eddowes** considered the case confirmed the ideas that these cases of Dermatitis herpetiformis frequently bore a close resemblance to Erythema multiforme.

Dr. H. C. **Semon** showed a case of *psoriasis and exfoliative dermatitis lapsing into Dermatitis herpetiformis* (*Dühring*). This case, which had been referred to by the exhibitor at the last meeting of the Section, on February 19th, in connection with Dr. Russell Wilkinson's case of Dermatitis herpetiformis treated with salvarsan, was now convalescent, and presented neither vesicles nor bullæ, but only the remnants of partially pigmented and softly infiltrated erythematous plaques. The patient, a woman, aged 41 years, was admitted to the Great Northern Hospital on January 20th, with a more or less generalised eruption of vesicles and bullæ, well-marked exfoliation of both palms and soles, and on the arms a few lesions of psoriasiform type covered with scales, which on removal exposed the oozing points of vascular papillæ. The upper part of the face and forehead were the only portions of the body free from lesions, and the scalp, ears, neck, trunk, and especially the legs, both anterior and posterior surfaces, were covered with vesicles and bullæ, varying in size from a pin's head to a pigeon's egg. Many of the blebs arose from an erythematous softly infiltrated base, especially the smaller ones; not a few, on the other hand, from apparently normal skin.

Their contents were *ab initio* clear or slightly blood-stained serum and this was not under great tension, most of the larger bullæ being flaccid. A certain amount of crusting and secondary infection had taken place, and subjective symptoms of itching and burning, especially at night-time, were a marked feature of the case.

The eruption of the bullæ and vesicles continued from the day of admission (January 20th) until about February 25th, and was accompanied throughout by a septic type of temperature, which did not, however, exceed 101·6° F. The general condition of the patient, considering the severity of the symptoms, was at no time a cause for anxiety. On admission there was an eosinophilia of 27 per cent., and this had only slightly decreased to date to 24 per cent.

The interest of the case, and the point which the exhibitor desired to place on record, was the question of an ætiological *versus* a chance sequence in her highly suggestive history. For twelve years this patient had been an intermittent sufferer from psoriasis, for which she had been treated, amongst others, by the late Dr. Radcliffe-Crocker, whose 1902 case-book (kindness of Dr. Pernet) confirmed her statement. For four months previous to admission Dr. de Boissier, of North London, had been treating her for the same condition, and assured Dr. Semon that he had given her no arsenic for two months. He mentioned, however, that the patient was highly emotional, and a secret alcoholic. The patient stated that whilst under this gentleman's care she had, unknown to him, made a trial of the "cuticura cure," and that a few days later she had developed intense inflammatory symptoms on the face, neck and arms, which culminated in peeling of the skin. A week later the blisters made their appearance (January 4th), and on January 20th she was admitted in the condition which has been already described.

The character and grouping of the bullæ, the presence of the erythematous plaques, the eosinophilia, and the comparative good health of the patient, in spite of many restless nights from the intense symptoms of itching and burning, were fairly conclusive evidence of the nature of her malady, but the ætiological significance, if any, in the direct sequence of psoriasis, exfoliation and Dermatitis herpetiformis had not, so far as the exhibitor knew, been noted hitherto, and was one on which he would much like to have heard the opinions of members of the Section.

Dr. H. C. SEMON also showed a case of *Hydroa æstivale* (*et hiemale*). The second patient exhibited by Dr. Semon he considered to be a mild case of the condition first described by Bazin, in 1863, under the title, "Hydroa vacciniforme," and since classified by Hutchinson, Crocker, Bowen, Adamson and others as belonging to a distinct group of eruptions produced by actinic light rays of short wave length on exposed parts of the body. The patient, a boy, aged 8 years, had first developed small pimples on his cheeks, forehead and ears about a year ago. The eruption, which was always irritable, had later appeared on the backs of his hands and wrists, and in the course of the summer, when he was wearing socks instead of stockings, on his knees and legs. Many of the spots had discharged a clear fluid, and minute crusts had been noticed by the mother to form on the surface of these, and to fall off in the course of about a week or ten days. There was nothing in personal or family history of importance in the case, nor were the other children similarly affected. The patient had never been quite free of the eruption since its first appearance, although at the present time the hands and legs were free. In this respect it differed from the more common summer prurigo type of Hutchinson. The patient's face now presented irregularly scattered scratched papules, and these were situated mainly on the cheeks. On the sides of the nose were to be seen minute pitted scars, and a few of these were present among the papules on the face. On two occasions the exhibitor had satisfied himself that the primary lesion was a pale conical papule surmounted by a tiny vesicle, which doubtless accounted for the history of a clear discharge with crushing.

Treatment of the condition by lotions and ointments of various kinds, whilst they alleviated its irritability and checked the tendency to the formation of impetiginous crusts, had in no way diminished the eruption of fresh papules, and an ointment containing æsculin, a colourless substance derived from walnut juice, which is known to have a selective actinic absorptive action on ultra-violet rays, seemed also to be powerless in this respect.

The case is interesting, in that as it would seem to belong to a class midway between the severe bullous eruptions described by Bazin and the mild summer prurigos of Hutchinson. It has been noticed by Linser that such cases are sometimes associated with hæmatoporphyrinuria, and this author reports a case in which he could produce an excess of this pigment in the urine at will by exposing the patient to the light of an arc lamp or the rays of a Röntgen tube. The brilliant researches of Hausmann, who, by injection of minute amounts of hæmatoporphyrin, succeeded in sensitising white mice to the action of photo-actinic rays, also deserve mention in this connection.

In Dr. Semon's case, the examination of the urine, both chemically and by the spectroscope, failed to reveal the presence of an excess of the pigment.

CURRENT LITERATURE.

RESEARCHES ON THE VACCINO-THERAPY OF WRIGHT. R. SABOURAUD and H. NOIRÉ. (*Ann. de Derm. et de Syph.*, 1913, No. 5, p. 257.)

THE authors give the results of their experiences with vaccines prepared from the pyogenic staphylococci, the *Coccus cutis communis* and the acne bacillus. The staphylococcus vaccines are prepared from cultures from cold abscess, carbuncle, furuncle, folliculitis and sycosis grown on peptone-agar, to which is added 0·5 per cent. urea; subcultures grown for forty-eight hours at 38° C. are used. A simple method of removing the colonies by soaking in normal saline solution and also a method of weighing the organisms instead of counting them are described. Sterilisation first by ether and then by heat at 60° C. is employed, and the vaccine is put up in 1 c.c. tubes, each containing an emulsion of 1000 million mixed staphylococci. Injections are given at eight-day intervals of 500, 1000, 1500, up to 2000 millions, which dose is never exceeded.

The authors note that the first dose usually gives a definite though variable local reaction; subsequent injections much less so. They speak very favourably of the results in cases of furunculosis; they have not seen a resistant case, and cases treated over a year ago have remained cured. With regard to folliculitis of the sycosis type the results are not so good; amelioration occurs up to a point, but a few isolated pustules are prone to persist.

Cultures of the *Coccus communis* are readily obtained on agar from the scales of Pityriasis capitis et steatoides. The authors note (1) that vaccines made from the *Coccus communis* never give a local reaction, (2) that they have no action in folliculitis and furunculosis, and (3) that it is too early to say whether the vaccine has any appreciable action in conditions thought to be due to this organism; they suggest the possibility of it being necessary to combine it with the vaccine of another organism.

The acne bacillus is obtained in the first instance by imbedding comedones in Sabouraud's glycerin-acid-agar medium. Subcultures are then made on a new medium, the basis of which is whey, to which acetic acid, peptone and saccharose are added, and an aërobic growth is obtained which can be used after about ten days. Vaccines are prepared as for staphylococci. The following results are noted: (1) Some cases show marked improvement in four to five weeks after progressive injections of the same doses as with staphylococci. (2) Some cases, especially cases of Acne furunculosis and Acne necrotica, which show no improvement with progressive doses of acne bacillus vaccine in four or five weeks, improve rapidly if progressive doses of staphylococci are then given. (3) No definite results have come from simultaneous injections of acne bacillus with the *Coccus communis* vaccine as might be expected in cases of seborrhœic pityriasis. (4) The authors have not obtained any positive results in the case of simple seborrhœa of the face and scalp (progressive seborrhœic alopecia).

A. M. H. G.

LICHENOID TRICHOPHYTOSIS. GUTH. (*Archiv f. Derm. u. Syph.*, cxviii, No. 3.)

UNDER this title the author describes a grouped, finely papular, sometimes spiny, lichenoid eruption, associated exclusively with the well-known deeply infiltrating type of trichophytosis, and not at all uncommonly coincident with kerion in children. In its morphology it closely imitates the lesions of Lichen scrofulosorum. Neither mycelium nor spores can be isolated, or grown from the lesions—at least not in the author's experience—and he prefers to regard the eruption as a manifestation of hypersusceptibility to trichophytin, more especially as he has succeeded in artificially producing a closely analogous cutaneous condition by the inunction or injection of trichophyton emulsions in immunised individuals.

Histologically the picture is one of intrafollicular inflammation with follicular and perifollicular hyperparakeratosis, which finds its most emphatic expression in the production of horny spines and the clinical tendency to simulate Lichen spinulosus.

H. C. S.

THE METABOLISM OF SALVARSAN AND NEO-SALVARSAN IN THE ORGANISM. RIEBES. (*Archiv f. Derm. u. Syph.*, cxviii. No. 3.)

THE following is a short summary of the author's conclusions:

(1) Both salvarsan and neo-salvarsan are retained longer in the body than either atoxyl or arsacetin.

(2) The amido group of all four substances can be demonstrated for a very short time only in the blood and urine, but for at least ten weeks in the muscles after injection, although 60 per cent. of the total deposited here is given off to the rest of the body within twenty hours.

(3) The intravenous injection especially leads to deposition of the drug in the inner organs, most in the liver, and with repeated injections an accumulation here is the rule.

(4) The excretion of salvarsan is mainly through the urine and fæces, and it is rare for vomited matter to contain it. It is never found in the sweat.

The author states that four to six hours after injection it is difficult to demonstrate salvarsan in the urine, although traces of arsenic are demonstrable in the organs and urine for months.

He finds also that rapidly repeated injections of salvarsan tend to diminish the relative speed of excretion, although he could trace no relation between the latter and the size of the dose injected.

(5) It is rare to find arsenic in the central nervous system.

H. C. S.

THE MELANOTIC PIGMENT OF THE EPIDERMIS. Kreibich. (*Archiv f. Derm. u. Syph.*, cxviii, No. 3.)

Prof. Kreibich, of Prague, who is perhaps the most productive and reliable histologist in modern dermatological circles, has written an interesting and valuable contribution on the melanotic pigment of the epidermis. According to his researches the pigmentation of an hitherto unpigmented area of the skin begins in the melanoblasts. The characteristics of these cells are the loss of protoplasmic fibrils, a spongy condition of their protoplasm, a round, oval, ballooned, or branching and dentritic shape, and a marked lipoidal doubly refractile and sudanophilic content. They are situated in the basal layers of the epidermis, and in Kreibich's opinion are derived, not from the mesoderm, but from epithelial cells, which, on the impulse of given stimuli, have altered both shape and function and become melanoblasts. Any epithelial cell perhaps may become a melanoblast on his assumption, and a melanoblast is identical with the specific cell element of Paget's disease of the nipple—or the nævus-cell, or the tumour-cell of a melanoblastoma—which, if it becomes malignant, has, therefore, a right to be termed a melanocarcinoma whether it be derived from the epidermis or from a nævus-cell. There are melanoblasts, therefore, which form neither lipoid (the precursor of melanin) nor pigment, and examples of these are nævus-cells, the cells of Paget's carcinoma, and the highly malignant cell elements of a melanotic carcinoma, not all of which, as we well know, contain pigment.

His microphotographs are most illuminating.

H. C. S.

A CASE OF CHRONIC GLANDERS. Valk and Schoo. (*Archiv f. Derm. u. Syph.*, cxviii, No. 3.)

The authors describe a case of this extremely rare malady in Amsterdam, and discuss in the most able manner the exceeding difficulty of making a diagnosis, even when the condition is suspected. As an aid to this they lay stress on the following points: (1) A chronic course, with intermittent periods during which the patient has apparently quite recovered; (2) the preservation of fairly good general health; (3) the localisation of infection in the mucous membrane of the mouth, nose, and accessory sinuses; (4) the simultaneous presence of large and small scars with the ulcerations.

With regard to the cutaneous eruptions usually present they state that polymorphism is the rule, and mention roseola, papules, bullæ, pustules, gummata and purpura, with or without intra-cutaneous abscesses and fistulæ, as having been noted in the literature. Their own case was a cobbler, aged 34 years, who for five years had suffered from the polymorphic eruption above named, together with ulceration and crusting in the region of the nose. The diagnosis of chronic pemphigus with which he had consistently been labelled throughout was at once discarded by the authors owing to the fact that the vesicles were *purulent* from their inception, and did not contain the clear serum so typical of the pemphigoid group. Syphilis, in spite of the positive Wassermann, was also dismissed, and it should be noted in passing that nearly every case of chronic glanders is diagnosed at some time or another as tertiary lues. Tuberculosis, sporotrichosis, iodide eruption, and bichromate (trade) ulceration were mentioned and discussed, only to be rejected in turn, and the diagnosis of chronic glanders was ultimately suggested by a case of Cranston Low's (Edinburgh), reproduced from a moulage in the *Ikonographia Dermatologica* of 1912. The bacteriological examination of nasal secretion stained by polychrome methylene-blue revealed the *Bacillus mallens* in groups among staphylococci, but the inoculation of monkeys failed, as it does in one fourth of all cases injected. These bacilli were found post-mortem in large numbers in the skin sections and in the lungs, although spleen and liver remained free.

Other points which are emphasised in this valuable contribution are: (1) The sporadic nature of the disease; (2) its comparatively non-infectious character to the nurse and immediate relatives (the patient's wife nursed him unscathed for five years); (3) the exceedingly serious risk to the bacteriologist and the post-mortem porter, of whom several have been infected through abrasions in the hand; (4) the absence of glandular infection in man as distinguished from its extreme prevalence in horses, from whom the disease is caught; (5) the very great difficulty of diagnosis and the complete failure of every known treatment to cure when once the disease has got a hold.

The article is illustrated with some excellent reproductions of microphotographs and photographs.

H. C. S.

A CLASSIFICATION AND DESCRIPTION OF THE CUTANEOUS EPITHELIOMATA. J. E. R. McDonagh (*Journ. Cut. Dis.*, vol. xxxii, No. 1.)

The following is the classification suggested by the writer:

(1) Epidermic.

(2) Appendicular.

(3) Mixed epidermic appendicular.

The epidermic should be divided up into prickle-celled epithelioma, mixed-cell epithelioma, and basal-celled epithelioma. The prickle-celled epitheliomata should be further subdivided into benign prickle-celled epithelioma or papilloma, recurring prickle-celled epithelioma and malignant prickle-celled epithelioma.

The appendicular should be divided into trichoepithelioma, sebaceous epithelioma and syringo-epithelioma, the two last having a subdivision of recurring sebaceous epithelioma and syringo-epithelioma.

The mixed epidermic appendicular should be subdivided into multiple rodent ulcer and Epithelioma adenoides cysticum.

J. M. H. M.

THE BRITISH
JOURNAL OF DERMATOLOGY.
MAY, 1914.

A NOTE ON TWO CASES OF EPITHELIOMA ADENOIDES CYSTICUM (BROOKE), TRICHO-EPITHELIOMA PAPULOSUM RODENS (JARISCH).

By E. G. GRAHAM LITTLE, M.D., F.R.C.P.,
Physician to the Skin-Department, St. Mary's Hospital.

By a singular chance the publication of Dr. Adamson's important contribution to the meeting of the Section of Dermatology of February last was followed by the appearance at my clinic at St. Mary's Hospital of two cases of the rare disease with which that paper dealt in so interesting and able a manner. The first case occurred in a labourer, aged 68 years, who came to St. Mary's Hospital Skin-Department on March 19th, with three tumours on the face. Two of these were intact; the third had shown a chronic ulceration for at least three years, with a very vascular excavated surface scabbing over from time to time but never healing. None of the lesions had lasted longer than seven years. My first diagnosis was that of multiple rodent ulcer; I was influenced in making it chiefly by the condition of the ulcerated tumour, but the aspect of the solid intact growths arrested attention as being rather unlike the nodular stages of rodent. The largest of these growths was situated on the forehead, about an inch above the left eyebrow. It was a bean-shaped excrescence, 15 mm. long in the horizontal plane of the forehead, and 5 mm. broad, with an elevation of 4 mm. from the surrounding level of the skin. It was very firm to the touch, implicating the whole thickness of the skin, but freely movable with it. The surface was absolutely intact, but there was a slight puckering, not amounting to an umbilication, of the centre. The ridge surrounding this slightly depressed centre seemed to be made up of closely contiguous but semi-independent nodules, of the size of a split-pea, thus imparting a somewhat moniliform appearance to the ringed edge of the growth, recalling the ridge of a Granuloma annulare. The whole tumour was of waxy translucence. An exactly similar but slightly smaller lesion was present on the right side of the nose just above the ala nasi; and occupying the entire tip of the nose was an ulcerated area, which the patient stated had started in the same way as the two lesions just described. No tumours could be seen elsewhere, the scalp in particular being absolutely free. There was no history of other members of the family being affected. The tumour from the forehead was excised for histological examination and sections made from it will be described below. The other two lesions were treated with freezing by carbon dioxide snow. Three applications each of thirty to forty seconds resulted in a complete levelling of the intact growth and a removal of any

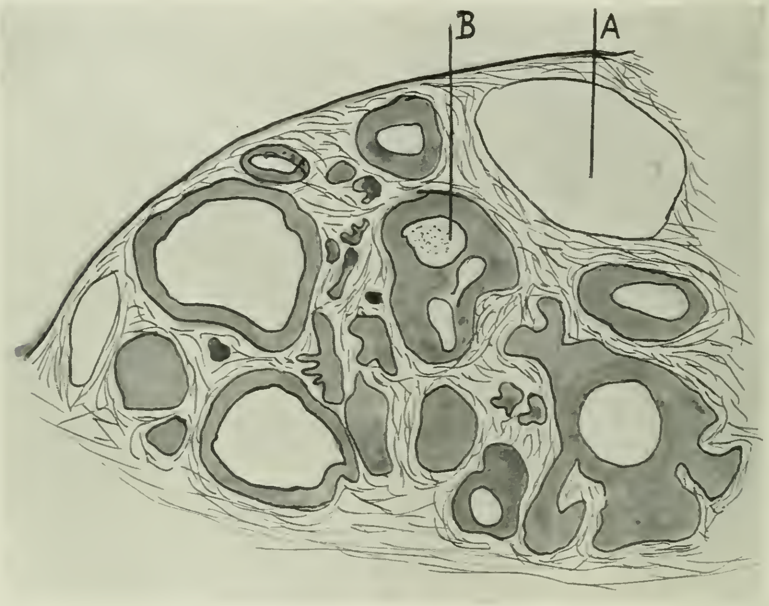

Fig. 1. Case 1.—Drawn with camera lucida. Ocular 2. Objective 3 inch. A. Large empty space in connective tissue. B. Epithelial mass. with cysts filled with colloid matter.

suspicious hardness of the base, so that further treatment seemed unnecessary; the ulcerated area has also ceased to show presence of rodent tissue and the patient is simply being kept under observation, no local application beyond boric ointment being used. The rapidity with which the hard intact tumour disappeared under the treatment by freezing was very remarkable, and, indeed, unexpected by me, for I had intended having the man photographed to illustrate this paper, but when he presented himself for the purpose the condition had changed too materially to make this worth while.

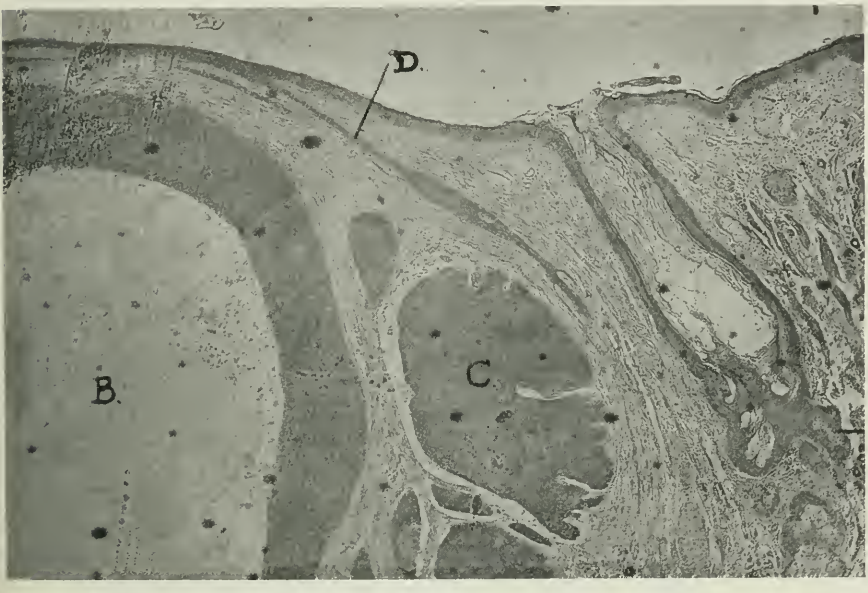

Fig. 2, Case 1.—High magnification. At the edge of the tumour-formation a pilo-sebaceous follicle is shown with an early epithelial proliferation (A) at its base. B. A large mass of epithelial cells with a great central cavity, in which some *débris* is seen, but it is otherwise empty. It is closely invested by thickened fibrous tissue. C. An epithelial mass without central cavitation, lying partially loose in its envelope of fibrous tissue. D. An epithelial tract with some resemblance to the duct of a sweat-gland. The presence of these tracts and their erroneous identification with sweat-ducts led to the name "syringo-cystadenoma" adopted by Torok and Unna. As Brooke pointed out in refutation of this identification, the tracts never show lumen.

Histological examination of section of tumour from forehead.—The epidermis is thinned to a single line and its appendages are entirely absent from the tumour formation, being replaced by organised fibrous tissue. Immediately below the thin boundary line of the superficial covering of the tumour there are a number of large lacunæ in the fibrous tissue, many of them partially or wholly filled with epithelial masses, in the larger of which there is usually a central cavity, either empty or with scanty, unorganised *débris*, staining very faintly with eosin, not with hæmatoxylin. The epithelial cells constituting these masses are mostly without prickles, and show loose packing with some dissociation, and, in many cases, more or less advanced colloid degeneration. There is no dispersion of epithelial cells in the stroma, which is singularly compact and devoid of cell elements, but here and there there are collections of non-epithelial cells lying in the stroma, consisting for the most part of large mononuclear cells with scanty protoplasm around the nucleus. The histological picture, therefore, is one of benign epithelioma of the type described by Brooke as Epithelioma adenoides cysticum, the epithelial nests in the cutis being densely encapsuled by fibrous tissue, with no epithelial infiltration of the connective tissue. This benign character of the growths is partly confirmed by the unusual size of the excised tumour, which had persisted and grown for several years without undergoing ulceration. The ulceration which had taken place in the single tumour at the tip of the nose may have been partly due to the lower vitality of that part, which is the explanation usually given for the frequency with which this is the site for lupus.

The second case came to St. Mary's Hospital Skin-Department on April 6th, and also occurred in an elderly man, a carpenter, aged 58 years, who had begun to develop tumours of the face and body some fifteen years ago. Except that the tumours were smaller and far more numerous, their clinical aspect was very like those in the case described above. These were small, hard, waxy nodules, frequently umbilicated so as to resemble Molluscum contagiosum, the largest about 12 by 7 mm., the smallest with a diameter of some 3 mm. The distribution, which was symmetrical, was as follows: There were numerous small nodules, constituting an efflorescence at the outer angle of both eyes and on the neighbouring area of the forehead, over the malar eminences, on the bridge of the nose, and on both sides of the cartilaginous portion of the nose and alæ nasi and on both cheeks; on the upper and lower eyelids on both sides there were numerous small nodules and scars, the lower lids being everted, especially on the right side. There were numerous similar lesions behind the ears, on the upper lip and on the chin just below the lower lip, and in this latter position a deep rodent ulceration had taken place, about 30 by 10 mm. in extent, the long axis being in the horizontal axis of the face. The edge of this ulceration was typical of rodent, being rolled and of cartilaginous hardness. The lower lip was everted by the ulceration, which had extended deeply, so that the skin was adherent to the underlying bone. There was another similar ulceration, about 40 by 10 mm. in extent, along the lower border of the left jaw, the long axis being in the horizontal line of the jaw-bone. Rather larger individual solid tumours were found on the skin over the pomum Adami, on the left upper arm and forearm, on the front of the chest, over the left clavicle, and in the left axilla. Fine blood-vessels course over the ridge of the larger tumours, some of which are reddened and

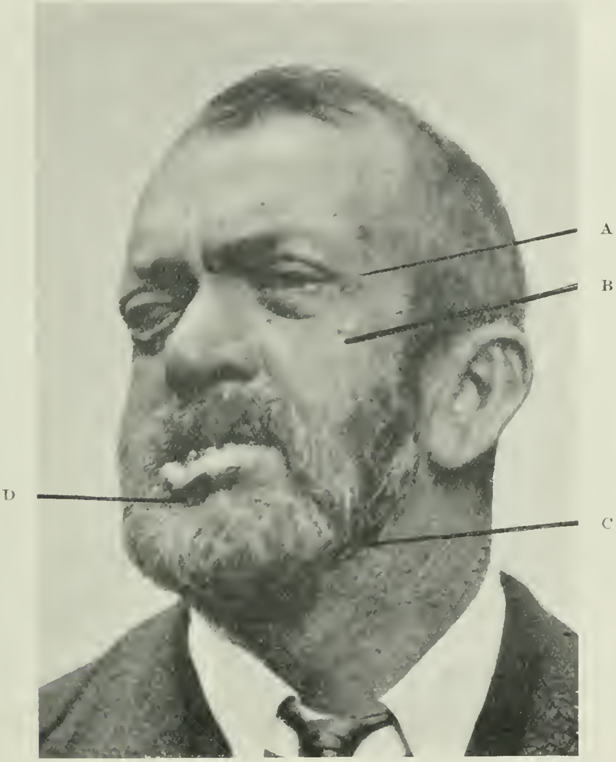

Fig. 3. Case 2.—Clinical appearance in second case. A. Efflorescence of small tumours, some of them scabbed and scratched. B. Scarring from old operation. C. Deep rodent ulceration. D. Deep rodent ulceration.

more vascular than others. In many cases there were crusts on the smaller tumours, probably caused by the man's habit of picking off the tops, and so making them bleed, for they appear to be slightly itchy at times. But there was no actual ulceration except in the two positions described, and these had been ulcerated since 1903, and may have been partly due to an X-ray burn, of which there is a rather definite history.

As the number of tumours has been made a test of diagnosis a detailed count was attempted. There were about forty-four small tumours on the right side of the face and forty-three on the left, including the efflorescences mentioned as being present around the ears; there were six well-marked tumours in the circle of the neck; there were four on the right upper arm and forearm, and six on the left upper arm and forearm, and one in the left axilla, the largest individual tumour seen; there were six scattered but well-defined tumours on the upper part of the chest on both sides, one especially large and prominent under the left clavicle. The back was free of tumours, and, with the exception of a few soft moles, showed no abnormality. There were no lesions below the level of the nipple. The scalp was entirely free and the hair was well preserved. A point of special interest, since it has been found frequently associated with Brooke's diseases, is that there were numerous milia on the forehead and front of the chest.

No other members of the family were affected.

The patient had been sent to my department by my colleague, Mr. Leslie Paton, with a note that he was suffering from "scleritis, sclerosing keratitis and iritis. Discs normal." His vision was very poor, and he was almost entirely deaf. The Wassermann reaction was reported to be negative.

The man was extremely suspicious and reticent. He had had X-ray treatment at intervals of a fortnight over 6–7 years; at another hospital caustic treatment, scraping and erasion had also been practised for some of the tumours, and numerous scars had been left by these procedures.*

The section to be described was cut from an isolated intact tumour, about 10 by 5 mm. in size, situated on the left upper arm.

Histological examination.—The epidermis was extremely thin, con-

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* I have since learned that the patient was under Dr. Sequeira's care, and that he looked on the case as one of multiple rodent ulcer.

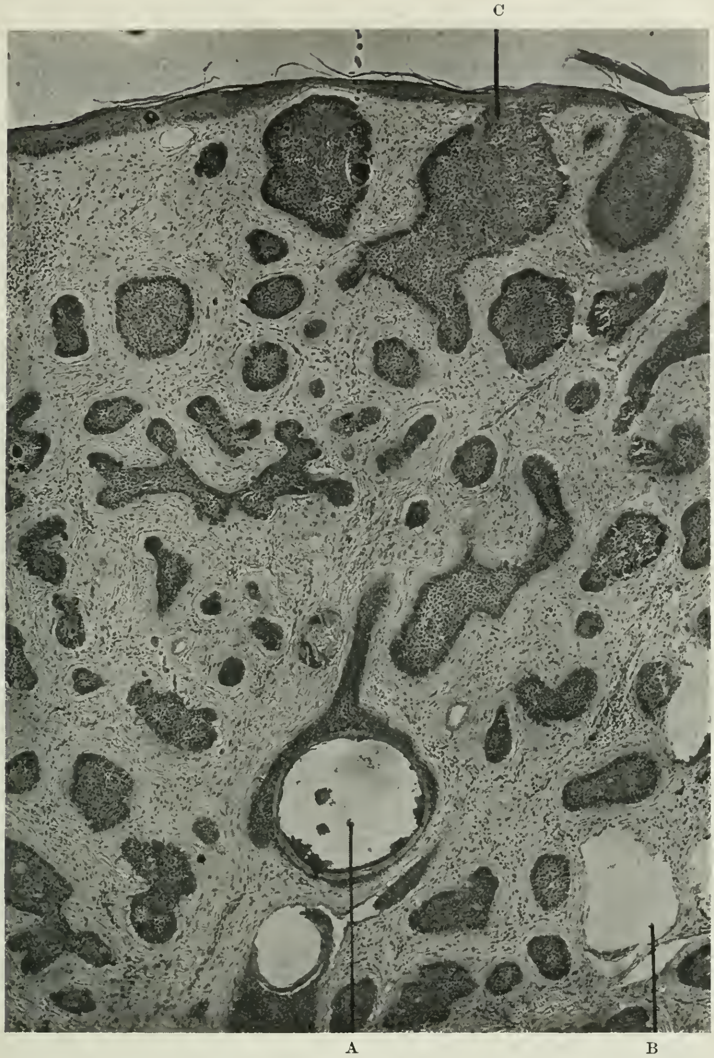

Fig. 4, Case 2.—Medium magnification. a. A cyst showing an epithelial envelope at its upper half, the whole being invested by dense fibrous tissue. b. A cavity in the fibrous stroma from which the epithelial mass has probably fallen out. c. An epithelial downgrowth showing persisting connection with the basal layer of the epidermis. In Brooke's original paper a similar junction is depicted in his figures, and on this observation Brooke based his statement that "the growths originate directly from the epidermis, and not from the epidermic stratum alone, but also from the epithelium of the hair-sacs" (*Brit. Journ. Derm.*, 1892, p. 281). This view was amplified later by Jarisch and expressed in his proposed name "tricho-epithelioma," but Brooke has the priority both of the observation of the connection with the hair-sac and the establishment of the pathology of the disease, and it is but fair that his name should be associated with the affection. I have accordingly retained the description "Brooke's disease."

Illustrating Dr. Graham Little's Note on Two Cases of Epitheliom
Adenoides Cysticum (Brooke), Tricho-Epithelioma Papulosum
Rodens (Jarisch).

sisting of about half a dozen rows of cells, without interpapillary processes. Growing down from the epidermis and in some sections with a visible junction there were masses of epithelial cells arranged in acini, with closely packed palisade cells limiting the cell masses externally, with more dissociated cells in the inner layers, but almost all retaining their prickles. There were a few cysts and several pearl-nests in the larger masses of epithelial cells. The connective tissue was thickened and highly organised and surrounded the masses like a capsule, and there was no dispersion of epithelial cells into the stroma, *i.e.* the growth was of a benign type. There was hardly any cellular infiltration of the connective tissue, and where it occurred, was chiefly of a larger mononuclear type.

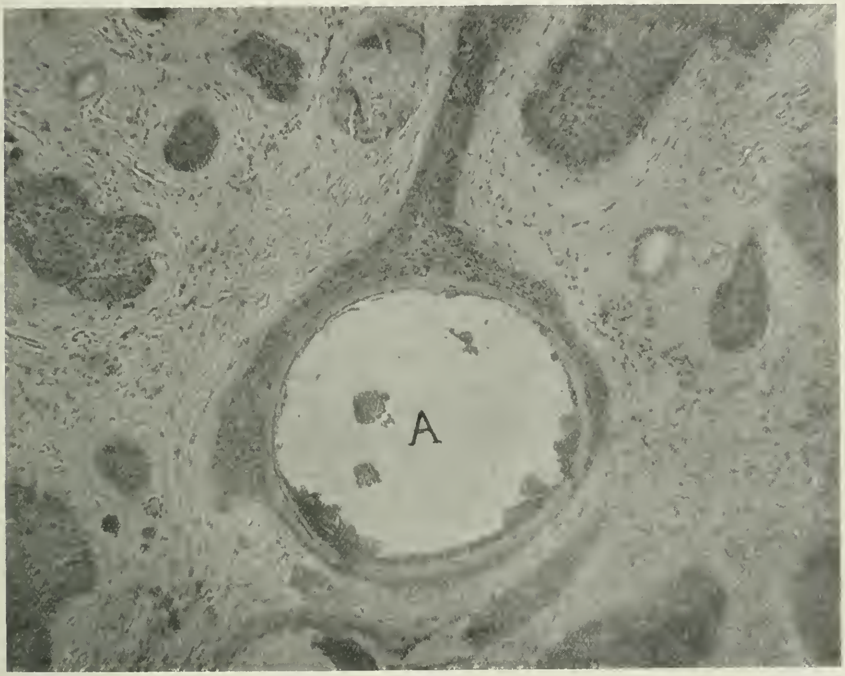

FIG. 5. Case 2.—Higher magnification of the central part of the tumour figured in Fig. 4 with the same lettering, showing the cyst A with its upper epithelial segment still present. The microphotographs have been obligingly furnished by Prof. Nékám from sections sent to him by me for reproduction.

I do not know whether these cases will be accepted as true examples of tricho-epithelioma, and the difficulties of diagnosis between this condition and rodent ulcer may be grasped when one reflects that a case reported by J. C. White, after full histological examination, as Epithelioma adenoides cysticum is regarded by Dubreuilh, and he is followed by Adamson, as in reality a case of rodent ulcer; a case reported by Jarisch as histologically typical of Brooke's disease is also classed, with weighty reason, by Adamson as rodent, and this same authority refuses to accept for anything but rodent yet another case reported by Stelwagon as Brooke's disease. One may therefore examine the criteria which Adamson proposes as distinctive of the two conditions. They are tabulated as follows:

Clinical Differentiation.

Multiple rodent ulcer.	Epithelioma adenoides.
1. All cases occurred in adult males (except White's case).	All cases occurred in women, and the lesions appeared in childhood.
2. Not hereditary.	Generally in mother and daughter.
3. Distribution of lesions irregular.	Distribution of lesions markedly symmetrical.
4. Lesions of widely different sizes.	Fairly uniform size of lesions.
5. Tendency of lesions to increase in size and to break down, *i. e.* become locally malignant.	No tendency of lesions to enlarge beyond the size of a split-pea, nor to break down, *i. e.* to become locally malignant.

Histological differentiation.—"In both diseases the lesion is made up of an epithelial growth, derived from the basal layer of the epidermis or from that of the hair-follicles. The growth is in the form of cell-masses with a marginal palisade layer and central oval cells. There is a tendency to cyst-formation in both, *i. e.* colloid cysts and epidermal cysts (milia). In both, the epithelial masses have new-formed encapsuling fibrous tissue. Here, however, the resemblance ceases, and we find that while the lesion of Brooke's disease is sharply circumscribed by a highly organised fibrous tissue, there is in the rodent ulcer a more highly cellular, and, therefore, more actively growing fibrous tissue element, a plasma-cell exudation at the advancing margin, and outlying groups of epithelial cells invading the tissues beyond the main growth. These differences in the histological features correspond with and explain to a certain extent the differences in the clinical behaviour of the lesions, namely that one is restricted or benign in its growth, while the other tends to enlarge and to involve and destroy neighbouring structures, or, in other words, is locally malignant. But of the essential cause of this difference in behaviour we are ignorant" (*Lancet*, 1908, p. 1137).

The earlier cases of Brooke's disease had been recorded only in women; five only were accepted by Adamson in 1908 as true examples of the disease, and in four of these mother and daughter were affected. In a later paper (*Trans. Roy. Soc. Med.*, Derm. Sect., March, 1914), Adamson himself reports two cases in males, sons of a mother who herself was similarly affected, as well as her daughter, so that the disease cannot be said to be confined to the female sex. In this same series of four cases the disease had commenced at the ages of 35, 19 and 18 years. In Csillag's first case, accepted by Adamson, the age of onset was 30 years. There are, therefore, numerous precedents for commencement at adult and later periods of life. Ulceration took place in Jarisch's case, which, however, Adamson regards as probably rodent, although Jarisch states that the ulcerated lesions showed the same histology as Brooke's cases, and this author makes a special class of ulcerated cases for which he proposed the name at the head of this paper. In White's case, rejected by Dubreuilh and Adamson, there was ulceration after a long period of apparently perfectly benign growths. Symmetry seems to me an improbable feature of rodent ulcers, for these are seldom numerous enough to establish symmetry, in which a certain extent of eruption is essential. In my second case, in which the whole face was involved, there was symmetry because the face was symmetrical, but there were isolated lesions on the body which were too few to be regarded as symmetrical. Dr. Whitfield, in the discussion on Dr. Adamson's cases, rightly remarked that rodent nodules did not usually attain a considerable size because they ulcerated early. Adamson has reported a case of Brooke's disease, with a very large tumour on the scalp, demonstrated to be basal epithelioma, so that size of the lesion is not against the diagnosis of Epithelioma adenoides cysticum. None of the clinical differentiations offered can therefore be strictly maintained, and it seems equally difficult to establish a histological criterion.

The formation of cysts in the centre of the epithelial masses, on which Brooke placed much stress in his original description, is not confined to this condition. Dubreuilh, in fact, constitutes a class of rodent ulcer, which he describes as cystic, and he figures as a type of this class a cutis occupied by epithelial cysts even larger than the cysts figured by Brooke.

In a very extraordinary case under my own care, of a large growth, the size of an infant's palm, on the middle of the back of a middle-aged gentleman, in which the growth seemed clinically to be made up of innumerable small cystic tumours the size of a split-pea, histological examination showed a rodent epithelioma, riddled with cystic dilatations. The sections, but not the patient, were seen by Dr. Whitfield, who insisted on their rodent character. This case also made an unexpectedly rapid and apparently complete recovery under the application of salicylic acid plaster, and there has not, I believe, been recurrence in the eight or nine years that have elapsed since I saw the case.

A better criterion is probably found in the density and completeness of the fibrous capsule isolating the epithelial masses of cells, and the absence of dispersion of these cells into the surrounding stroma. Judged by this feature, both of my cases are typically benign, and yet in both there was ulceration of rodent type in isolated lesions. This ulceration might, however, as I have suggested, be due to other causes. The vast majority of the growths showed no malignancy. My first case seemed to me clinically more like rodent ulcers and nodules, and histologically more like Brooke's disease. My second case in the extreme multiplicity and essential benignity of the tumours seemed clinically more like Brooke's disease and histologically more like rodent. The two cases together accentuate the extraordinary difficulty of deciding the diagnosis between Brooke's disease and rodent, and lend much colour to Adamson's latest view that they are, in fact, essentially the same pathological process—a view which is supported by the reflection that all criteria hitherto advanced for differentiating the two conditions have broken down in practice. The extraordinary rapidity with which one of the hard, older growths in my first case disappeared with carbon dioxide freezing suggests that this agent may be as useful in dispersing these tumours as it admittedly is in another type of epithelial growth—the common wart.

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ON THE BIOLOGICAL POSITION OF THE SPIROCHÆTA AND ITS DEVELOPMENT.

By DR. MEIROWSKY.

(*Abstract by* Dr. H. C. SEMON.)

IN an article in the *Derm. Wochenschr.*, lviii (1914), Dr. Meirowsky, of Cologne, calls attention to the much-debated biological position of the *Spirochæta pallida*. At the International Medical Congress in London (1913) this author read a paper in support of his contention that the organism of syphilis is a member of the class of bacteria which are termed "schizomycetes" (German, "Spaltpilzen"), and belongs therefore to the vegetable as opposed to the animal kingdom.

He is therefore entirely opposed to the view championed in this country by McDonagh, who, on the basis that there is a certain resemblance between spermatozoa and spirochæta, is convinced that the latter represents the male cycle of an hitherto unknown protozoon —the leucocytozoon of syphilis—and classifies it in the division Sporozoa, subdivision Telosporidia, among the order Coccidia. As entirely antagonistic to this view the author quotes the well-known zoologist, J. Gross, who has stated that all analogies with flagellata and other protozoa are misleading, and that he is unable to entertain the notion that there are sexual anatomical differences or reproductive cycles in the life-history of the spirochæta. The great majority of authorities (which include Noguchi, Laveran, Levaditi, etc.) are agreed that multiplication of spironemata takes place by a process of transverse segmentation and by sporulation, and that the organism therefore belongs either to the Schizomyceta or to a class between them and the Protozoa. Meirowsky has endeavoured to satisfy every criticism, and has given a very clear account, illustrated by comparative diagrammatic sketches, of the essential morphological resemblances in their methods of reproduction, of tubercle and leprosy bacilli, *Spirillum rubrum, Spirillum gallinum* and *Spirochæta pallida* both in the tissues and in living cultures. A reference to the plate is essential for a due appreciation of the author's arguments. Several different stains and fixatives were employed, and the spironemata examined were obtained from Sowade's pure cultures, from human tissues, from the spirillar disease of fowls and from cases of stomatitis and balanitis, so that the investigations embraced not the *Spirochæta pallida* only, but several members of the same class, to all of which he attributes a similar mode of reproduction, viz. by transverse division, budding and sporulation.

The author first gives a detailed description of the delicate chromatin structure of the cell-body of the tubercle bacillus, and describes how by intra-vital staining with methylene-methylviolet he was able to observe aggregation of the chromatin granules into small globules, and in many bacteria the extrusion of these in the form of buds. The separated free buds he regarded as identical possibly with Much's granules. The bud-heads stained darkly, and were attached by a fine, less deeply stained stalk or pedicle to the bacterial main body. In several cases longitudinal division of the bud heads were noted, together with splitting of the stalk, thus accounting for the oft-described branching of tubercle bacilli in the literature, and according with Hayo Brun's picture of a mycelial and complicated division in culture. The reality of mycelial branching is no longer disputed by most authorities, and Meirowsky lays special emphasis on the fact that the connection of bud, stalk, and bacillary body became very evident owing to the swaying movements when examined in an intra-vital stain. He then proceeds to describe an hitherto unobserved development of clubs or bulbs (dolden). These when present were invariably situated at the end of the bacillus, and when carefully examined were found to consist of a cloudy aggregation of very minute strongly refractile granules, taking a deeper stain than the elements of the bacillary body. Taken together these findings support the view that the tubercle bacillus is not really a bacillus at all in the true sense, but belongs, as Metschnikoff has suggested, to a bacillo-mycelial group, of which the tubercle bacillus, so called, is not a definite and fixed end-form, but merely a stage in a whole cycle of development and reproduction.

The author describes similar findings for the bacillus of leprosy, for which for other reasons Unna and Lutz had, as long ago as 1888, suggested the classification under a genus coccothrix, genetically separable from true bacilli, and he quotes the names of Bates, Reenstierna, and several others in support of his assumptions.

After shortly summarising a similar development in *Spirillum rubrum* grown in horse and cattle serum bouillon, and lengthening in this from spirilla with from one to three turns to organisms with over fifty, many of which exhibited the phenomena of lateral budding, Meirowsky passes to a final consideration of his observations by the methods of vital staining, fixed specimens, and dark-ground illumination, of the growth and development of *Spirochæta pallida.* (It should be noted in passing that much of what he describes for *Spirochæta pallida* in this paper was clearly visible in the cinematograph representations shown in London at the Congress by Schereschewsky, of Paris.) Dr. Meirowsky observed the aggregation of apparent chromatin granules into small globules, or expansions which might assume a lateral or end-on position to the spirochætal body. Extrusion of these followed, and the buds thus formed remained attached by a fine pedicle or stalk at the point of extrusion (*vide* diagram). He noted additionally that the stalk not infrequently carried two, three, or even four such minute buds, and concluded from this observation that spirochætal buds have the property of dividing. The multiplication of buds on a single stalk led him to suggest the term "club" (dolden) for the appearance produced. Many buds were not attached to the spirochæta, but lay alongside these, and in his opinion entered from the moment of separation on a separate and individual existence as embryonic spirochæta, consisting at first of one, two or three turns, and later developing to the adult specimen with eight to twelve separate undulations. Finally, he found what he describes as undoubted true lateral branching forms of adult spirochæta. Spirochæta from a primary lesion exhibited lateral buds with a spirillar

DESCRIPTION OF PLATE.

FIG. 1 illustrates a lateral and end-on bud as described by so many authors.

FIG. 2.—Lateral bud.

FIG. 3.—A tail bud with differentially staining protoplasm at opposite poles, said to be more obvious on the negative.

FIG. 4.—Lateral and tail bud. The latter shows very definite evidence of deeply staining granules in the protoplasm.

FIG. 5.—A tail bud undergoing typical fission.

FIGS. 6, 7, 8, and 9 illustrate an important phenomenon—pedunculation of buds. The stalk in fig. 9 has assumed the character of a spiral.

FIG. 10.—The central turns of this spirochæte have become lengthened, an appearance which, according to Schellack and some other authorities, always precedes the transverse division of many members of this group. The tail end is stretched and carries a bud.

FIGS. 11–17 are duplicates of others already described.

FIG. 18 reproduces two spirochætes, of which the left-hand individual is forked and the other ends in a stalked bud.

FIG. 19 is a typical example of a bulb or club (*vide* text) made up of closely aggregated deeply staining particles, and giving rise in the figure to a stalked bud. The constituent particles of the bulb could not be photographically reproduced, but some idea of them is suggested in fig. 26—taken from chicken spirillosis.

FIG. 20 is of major importance. It shows a spirochæte ending in a darkly stained body, which in the negative and under the microscope was found to consist of the aggregation of several rounded bodies. Implanted, as it were, in this bulb, a long stalked bud at one pole and at the opposite pole a bud with a free spiral stalk. Closely adjacent is a free bud and stalk.

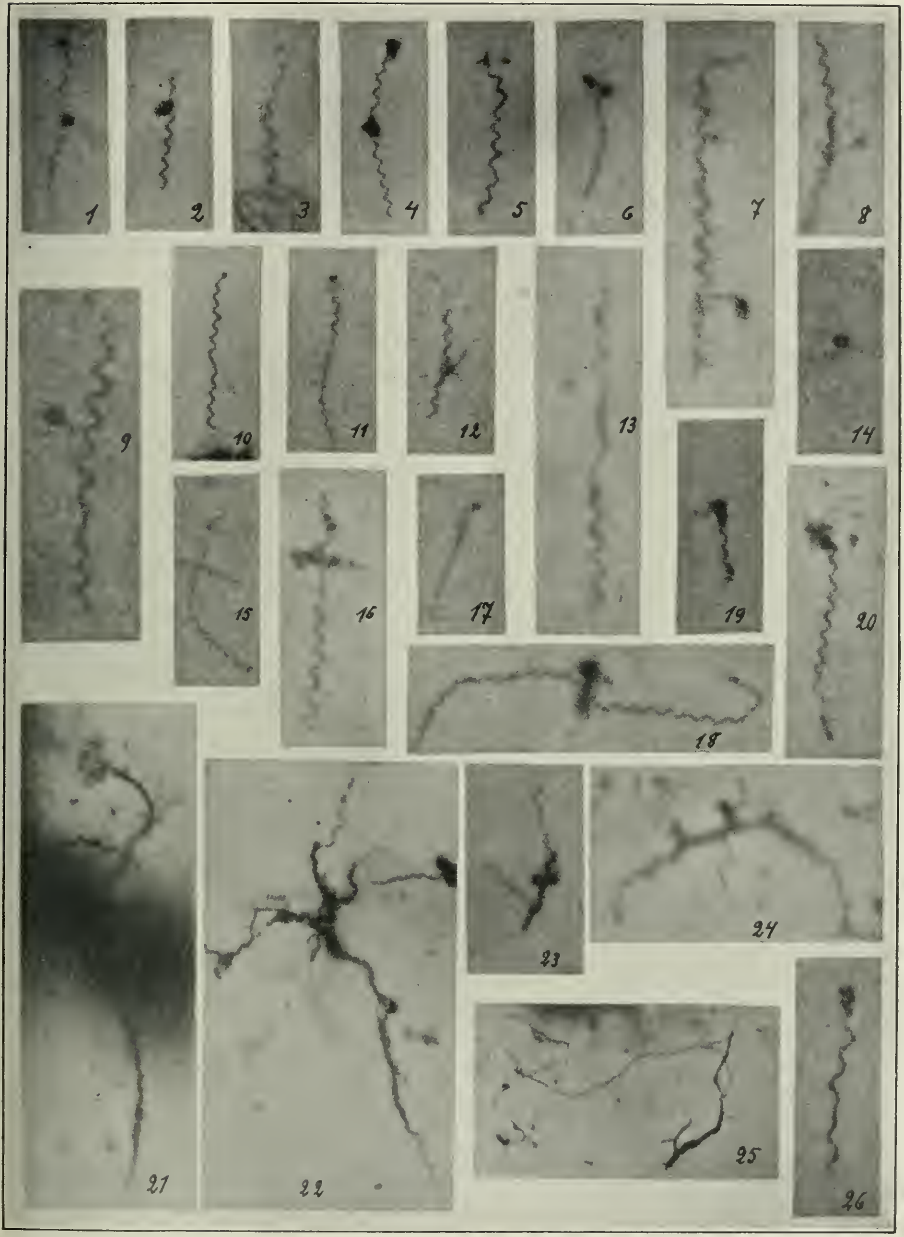
FIGS. 10, 13, and 15 are interesting as exhibiting difference in the staining power of the individual windings of the spirals.

FIGS. 21–25 illustrate the appearance of abnormal growth or involution forms met with in cultures. Fig. 21 shows a spirochæte with central swelling passing over (and not budding from) a body hardly recognisable any longer as a member of that group, so coarse have the changes become.

FIG. 22 shows similar coarse forms with end-on spirochætes and buds.

FIG. 24 is still recognisable as a spirochæte, and the lateral branches which spring from the main trunk have the spirochætal characters. A careful microscopic examination permits of the assumption that they really are buds and not accidental juxtapositions.

FIG. 25, of a mycelial appearance, is giving rise to the same branches, and a definite spirochæte of the *pallida* type is seen in the immediate neighbourhood.



REPRODUCED FROM DR. MEIROWSKY'S PAPER
in the *Münchener medizinischen Wochenschrift*, 1914, No. 11, pp. 592-6.

type of stalk; those from cultures, on the other hand, various, hardly recognisable, abnormal growth types also with lateral branching. It could hardly be expected that these observations would escape all criticisms, and the majority of these are concerned with the question of involution or degeneration phenomena, which, as is well known. often simulate the processes which Meirowsky has described. This author defends himself, however, with the reminder that when cells degenerate they tend to swell up and vacuolise, assume a yeast-like appearance, and exhibit thickened and opaque malformations, which in his observations were conspicuous by their absence. The abnormal growth of spirochætal forms which he observed have yet to be explained, and there is no agreement at present on their significance. A well-known botanist, Dr. Meyer, maintains that branching occurs at a time when the cells are still in an active state of growth, and cannot therefore be an example of a degenerative pleomorphism, but is far more likely to be an indication of a tendency to branch, inherited from some mycelial ancestor. The absence of such dichotomy has always been regarded as the simplest distinction between true bacteria and the more highly organised fungi, and this fact has led Lehmann and Neumann to suggest the generic term of mycobacterium for such organisms as those of tuberculosis and diphtheria, in both of which true branching occurs. Such a view would accord with the belief expressed by Brefeld and Gamaleia, that the bacteria are nothing else than the oidia of a fungus.

Summarising his views, Meirowsky states that the absence of a nucleus, an undulating membrane, and a blepharoblast are very cogent arguments against the protozoal nature of *Spirochæta pallida*. As regards the question of a botanical position for the organism, no assumptions on the basis of transverse segmentation can be made, for this method of multiplication is as common among protozoa as longitudinal division is among the bacteria, but it is of the greatest importance in coming to a final decision to take into consideration the fact that the spirochæte can reproduce its species by budding like other members of the true vegetable order. On this basis the author reiterates his conviction that *Spirochæta pallida* are true vegetable parasites, and that it is mere waste of time to elaborate analogies between them and the flagellata, or other protozoa with sexual differences, and reproductive cycles.

CONCERNING PROTEIN METABOLISM IN DISEASES OF THE SKIN.

An answer to Dr. H. Letheby Tidy's Critical Review.

By JAY F. SCHAMBERG, M.D., A. I. RINGER, M.D.,
G. W. RAIZISS, Ph.D., and J. A. KOLMER, M.D.
From the Department of Dermatological Research of the Philadelphia Polyclinic and College for Graduates in Medicine, Philadelphia, Pa.

In the February issue of the *British Journal of Dermatology* there appears a critical review of our work on "Protein Metabolism in Psoriasis" by Dr. H. Letheby Tidy. In his review Dr. Tidy raises several objections to some of our conclusions.

Dr. Tidy asks whether the nitrogen retentions observed in our studies of psoriatic patients are peculiar to that disease. He then proceeds to show that in certain affections other than psoriasis nitrogen retentions have been obtained. We never stated that nitrogen retention was peculiar to psoriasis. The following paragraph from our original communication* clearly expresses our opinion on this matter: "A nitrogen retention having been established to exist in psoriasis, the question presents itself, Is this nitrogen retention primary and to be regarded as the ætiological factor or one of the ætiological factors in the causation of the disease, or is it secondary to the pathological changes in the skin? *This question cannot be definitely settled at this stage of our investigation, although the latter proposition seems to be more in harmony with the demonstrated facts.*" We could not possibly have expressed any views with reference to any other disease, because our studies were limited to psoriasis.

Dr. Tidy next questions the existence of a true retention of nitrogen in the cases studied by us and expresses his belief that the observed retentions of nitrogen are only apparent and not real and can be accounted for by loss of nitrogen from the affected skin. We do not agree with Dr. Tidy on this point for the following reasons:

In the study of Patient 3 of our series (p. 827) the patient received 147·5 grm. of nitrogen in her food in Period VIII, and eliminated 86·6 grm. in the urine and fæces, leaving a positive balance of 60·9 grm. of nitrogen. In this period the patient wore a special suit of underwear day and night which insured complete collection of scales and perspiration.

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* Schamberg, Ringer, Raiziss, and Kolmer, *Journ. of Cut. Dis.*, xxxi, p. 137, 1913.

During this seven-day period 3·97 grm. of nitrogen were eliminated in 34·6 grm. of scales, and 1·61 grm. of nitrogen were found to be given of in the perspiration of five days. Calculating the amount of perspiration for the week (2·25 grm.) we find that a total of 6·22 grm. of nitrogen was lost through the skin and that 54·7 grm. (60·9 = 6·22) remain unaccounted for.

In Period X the same patient showed a deficit of 14·47 grm. of nitrogen, and in the collected scales there was only 0·386 grm. of nitrogen.

In Period XI 16·75 grm. of nitrogen remain similarly unaccounted for, and the amount of scales was so small as to be unmeasurable.

This kept up until the end of the investigation on the the patient. During the 128 days of the experiment 492 grm. of nitrogen were unaccounted for. After subtracting 89·6 grm. of nitrogen, which on the basis of our analysis is the amount eliminated in perspiration and scales, we still have over 400 grm. of nitrogen unaccounted for and which we naturally conclude was retained in the system.

In Patient 4, Period II, we met with similar results. He received 162 grm. of nitrogen in his food and eliminated 105 grm. in the urine and fæces, leaving 57 grm. unaccounted for. Only 3·5 grm. of scales were collected during this period, containing 0·39 grm. of nitrogen.

In Period III, 195 grm. of nitrogen were ingested in the food and 148 grm. eliminated in the urine and fæces, leaving unaccounted for 47 grm., of which only 0·34 grm. was found in the scales.

These are not small differences, and the daily analyses show the exact magnitude of the fluctuations.

If we accept Dr. Tidy's conclusions, we would have to assume that Patient 4 (in these two periods consisting of thirteen days) lost 104 grm. of nitrogen through the skin. His scales contained 11·19 per cent. of nitrogen; 104 grm. of nitrogen would be contained in 929 grm. or nearly 2 lb. of scales, which amount we hope our esteemed critic himself will admit could not have escaped our notice.

What evidence does Dr. Tidy present in support of his conclusion that there *is* no true retention of nitrogen in psoriasis?

Selenew's work is mentioned first. He worked on a very severe case of Pemphigus foliaceus. The patient's metabolism was studied for two periods of six and seven days respectively. During the first period the patient ingested 168 grm. of nitrogen; 108 grm. were eliminated in the urine and fæces, and 31 grm. in the scales, leaving 29 grms. unaccounted for. In the second period, 38 grm. were similarly left unaccounted for. Selenew expressed his belief that the unaccounted for nitrogen was lost through the skin, giving, however, no further experimental data upon which this belief was based.

Granting even that in Selenew's case there was that enormous loss of nitrogen through the skin which was not collected with the scales, it does not follow that a similar loss of nitrogen could have taken place from the skin of our patients. There is a great difference in the character of the material lost through the skin in Pemphigus foliaceus and in psoriasis. In the case of the latter it is chiefly in the form of dry scales, which can be found in the bed, clothing, and on the floor of the patient's room.

Further, Dr. Tidy brings as evidence experiments he performed on three cases of Exfoliative dermatitis, in which he found that the excess of nitrogen in the food over that in the urine was 8 grm. per day. If we subtract from this about 1·5 grm. of nitrogen per day which may have been eliminated in the fæces, we find that at least 6·5 grm. of nitrogen per day remain unaccounted for. No analyses were made of perspiration, and no collection or analyses were made of scales. We therefore have no reason for accepting Dr. Tidy's conclusion that all this nitrogen was lost through the skin, because that conclusion was not based upon experimental evidence, but merely upon belief.

We recognise that an exact quantitative collection of the scales is not possible, but we have devoted much thought and care to this matter with the view of securing as accurate a collection as could be made. We have, in addition to the ordinary collections, saved the daily room-sweepings, and have analysed these for their nitrogen content, subtracting therefrom the average amount of nitrogen found in the room sweepings of non-psoriatic patients.

The difference between the amount of scales collected by us and the amount Dr. Tidy would have us believe was actually exfoliated, is so great that it could not have been overlooked, even by methods much less painstaking than those which we employed.

We therefore feel justified in concluding that the suggestion of possible loss through the skin which escaped our attention, with the exception of very small quantities, is both unjustified, and is based on no experimental evidence.

The relationship between the nitrogen retention and the pathological process in the skin is fully discussed in our original paper. To bring out a few points of interest in this discussion we shall quote from that communication (p. 902):

"The proliferation and growth of epithelial cells takes place throughout the entire period of the disease, commencing, in all probability, long before exfoliation begins. For this growth of cells protein is required, which is abstracted by the multiplying epithelial cells from the blood-stream, in quantities proportional to the severity of the disease. This constant drain of protein from the body into the skin, where it becomes 'fixed,' gradually causes the impoverishment of the body in protein producing a condition of 'specific nitrogen hunger.'

"If at any time during this process a study of the protein metabolism is instituted, nitrogen retention will be evident. This retained nitrogen can go in one or two places, depending upon the stage of the disease and upon the protein status of the patient. It may be carried to the epithelium of the skin to become incorporated in the proliferating cells, and finally be given off as exfoliated scales, or it may be carried to the cells of the body, especially to the muscle-cells, which have become impoverished of their protein. The nitrogen may be deposited in the muscle-cells of a psoriatic patient, as it is in a convalescent patient after a prolonged illness. In both classes of patients a positive nitrogen balance takes place."

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on April 16th, 1914, Dr. J. J. PRINGLE, President of the Section, in the Chair.

Dr. GEORGE PERNET showed a *case of double primary chancres of the lips and neo-salvarsan Erythema toxicum.* The patient was a man, aged 27 years, who first came under observation on March 17th, 1914, for an extensive rash over the body and limbs. He had two sores on the lips—one to the left side of the middle of the lower lip, and the other more or less corresponding on the upper lip. These had started five weeks previously. The rash followed four weeks later, and had been present a little over a week. The sore on the lower lip was the first to appear, and was very quickly followed by the one on the upper lip. Both were well defined, and more or less circular and definitely indurated. The lower one exhibited a whitish exudation on its surface, whilst the upper one was crusted anteriorly. There was submental adenitis, and there was a marked hard swelling about the left angle of the jaw, and also to a less extent about the right angle. There was also post-sternomastoid adenitis, but no inguinal adenitis. The genitalia showed no sign whatever of primary sore, but there was some secondary rash about them. No epitrochlear adenitis. The throat was ulcerated, especially on the left side. The rash was mainly roseolar on the trunk, and papular and papulo-squamous about the limbs and face. The palms were typically affected. No headaches.

As the patient was a source of danger to his wife and children, and as he had no headache, and was found after careful overhauling to be quite healthy otherwise, he was given 0·9 grm. of neo-salvarsan intravenously on March 21st. When seen again, on March 24th, he said he had had some vomiting, diarrhœa, and "stomach-ache." He also exhibited a characteristic Erythema toxicum about the backs of the hands, on the insteps, and about the knees, which had started the day after the injection. This rash was circinate and punctate, and in parts coalescent. Faint remains could still be seen, especially on the knees. This rash was in the exhibitor's opinion quite independent of the syphilis, and was a toxic manifestation.

As a result of the neo-salvarsan, the primary sores had rapidly healed, the swellings at the angle of the jaw had subsided, and the rash had markedly faded, but remains could still be made out. The origin of the infection could not be traced, and appeared to be purely accidental. The exhibitor reminded members that he had shown a case of double primary chancre of the lips in a girl at the International Congress of Medicine last year.

The PRESIDENT (Dr. J. J. PRINGLE) asked whether the patient had been known to smoke anyone else's pipe, or to have used a common pen and placed in his mouth. His experience was that chancres of the lips were not very infrequently multiple. He inquired if the exhibitor had considered the toxæmic eruption as an example of Herxheimer's reaction, and invited the views of members as to the comparative frequency of the Herxheimer reaction after the administration of neo-salvarsan as compared with that after the original salvarsan.

Dr. GRAY asked what amount of fluid was used in giving the 0·9 grm. of neo-salvarsan in this case, seeing that the patient had abdominal symptoms and diarrhœa. He had noticed a considerable difference in this respect according as the injection was given in a very dilute or in a concentrated form. In the latter case one seldom saw after-effects, whereas every care as to the purity of the water did not seem to obviate such effects when given in dilute form. He understood the Herxheimer reaction to be an exaggeration of the ordinary lesions which existed for the time being, but in the present case there seemed to be an added eruption. He hardly ever saw the Herxheimer reaction, and he thought this was because he used big doses; it seemed to appear as a rule after small doses.

Dr. WHITFIELD said that he considered the Herxheimer reaction to be a specific reaction of syphilitic tissue as the result of treatment. It could be produced occasionally by mercury as well as by salvarsan. In this case the symptoms described by Dr. Pernet appeared to be a non-specific reaction, due to the drug rather than an exacerbation of previously present syphilitic symptoms. The term "Erythema toxicum" would therefore perhaps fit this particular case, though it was a rather wide and indefinite term, and he thought that "salvarsan erythema" would be better. The point which he wished to emphasise was that the Herxheimer reaction was specific for the disease and not for the drug. If the name "Herxheimer's reaction" was objected to, one might perhaps substitute "therapeutic reaction" for it.

Dr. F. PARKES WEBER asked whether the fauces were particularly involved in the general toxic erythema which affected the skin; sometimes they were affected in an extreme degree.

Dr. MACCORMAC said he had not observed the Herxheimer reaction so often after neo-salvarsan as after the old salvarsan. But he saw the reaction too seldom to be able to form a reliable judgment.

Dr. PERNET replied that the patient used his own fountain pen, and he had not smoked strange pipes. Every inquiry had been made to settle the mode of infection, but without success. Sometimes one saw what the French called "chancres successifs." He thought the rash seen in this patient was better termed "Erythema toxicum" than Herxheimer reaction. This rash he did not regard as a reaction of syphilitic tissue. As this patient had a bad specific throat, the exact condition of the fauces could not be made out.

Dr. W. KNOWSLEY SIBLEY showed a case of *bilateral telangiectases* (*Nævus araneus*). The patient was a single woman, aged 35 years, a tailor's presser by occupation, who stated that her father died at the age of forty-eight from apoplexy, her mother at the age of sixty-four from bronchitis, and she has a sister at the present time in an asylum.

Another sister suffered from a similar skin-condition, but to a much less extent.

The patient stated she had an attack similar to the present one six years ago, which lasted for about six months and then cleared up after applying some lotions. The present condition has been coming on for some seven months; the lesions first appeared on the sides of the lower jaw. There were a large number of telangiectatic dilatations varying in size from a millimetre to a centimetre, scattered fairly symmetrically over the lower regions of the face, being especially abundant over the ramus of the jaw and sides of the neck, extending down for some centimetres over the upper regions of the chest and on to the breasts. Minute ones were also present scattered about the surfaces of the arms. The majority readily disappeared on pressure; some, however, of the larger ones persisted. The smallest lesions consisted of minute red points, others were obvious vascular nævi, the so-called "tâche de Morgan," and the larger ones revealed a stellate or loose network of fine vessels, radiating in many cases from a central lesion; these have been described as "spider nævi." On close examination there was a faint atrophic scarring in places, and many of the affected skin areas had all the typical appearances of old-standing radio-dermatitis with marked telangiectases, but the patient had never had X-rays applied.

On the buccal mucous membranes several very similar lesions were present, especially on the inside of the cheeks. The capillaries on the lower eyelids were also considerably dilated, making the whole eyes look red and congested, and to a lesser extent dilated vessels were present on the conjunctivæ and upper eyelids. The veins of the legs were markedly varicose up to the inguinal regions. She had not suffered from hæmorrhoids, nor has she ever had epistaxis. She stated that her catamenia were normal. The urine did not contain either albumen or sugar. The pulse was regular and about 80; the second aortic sound was distinctly sharp and accentuated. The patient stated that, two years ago, she was in the infirmary for four and a half months suffering from gastric ulcer, at which time she had hæmatemesis, melæna, and hæmaturia. On palpation there was nothing obvious about the abdominal organs at the present time.

Many authorities have associated the presence of this form of telangiectasis with disease of the abdominal organs, often of a malignant nature. Fearnsides* considers that telangiectasis in children is associated with wasting and protracted disease, and in adults with grave wasting and asthenic conditions. Osler† that spider nævi are met with on the face and other parts, especially in cirrhosis of the liver, cancer, and chronic jaundice from gall-stones.

Douglas Symmers,‡ on the other hand, comes to the conclusion that these skin angiomata bear no relation to malignant disease, in which opinion Dubreuilh§ agrees.

As a student I was taught that the minute red nævi, "the tâches de Morgan," were associated with malignant disease. Considering the very great frequency of a few of these tâches on many people, I do not think there is any connection between these conditions, unless they are present in large numbers, when there might appear to be some relationship.

The symmetrical areas of telangiectases which occur over the malar processes in cases of chronic mitral disease are well recognised, and do not appear to have any connection with the condition under consideration, being always limited to these areas, and not occurring as distinct nævoid patches.

The President, who was sceptical on the point, could not, after close interrogation, upset the patient's definite statement that the eruption had completely disappeared and recurred. Her appearance suggested to him some profound toxæmia.

Dr. Adamson said the same woman had been shown by him at a meeting of the Section six years ago, and the condition did not seem to have altered in the interval, though the patient looked more ill and thinner. Her statement that the patches had gone away and come back again he attributed to inaccurate observation on her part, for he had seen her off and on for two years, during which there had been no change. A photograph published in *St. Bartholomew's Hospital Reports* in 1909 showed exactly the same condition as at present, except that a few of the larger patches had been destroyed by electrolysis. An interesting point in regard to these cases of multiple telangiectases was whether we were to regard them as nævoid conditions or as alterations due to some acquired illness. Hyde had published some cases in the *British Journal of Dermatology* in which the telangiectasis were associated with exophthalmic goitre, and when he (the speaker) first saw this patient he thought he could detect some enlargement of the right side of the thyroid and some slight ex-

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[*] Fearnsides, *Brit. Journ. Derm.*, 1912, p. 35.

[†] Osler, *Johns Hopkins Hosp. Bull.*, November, 1901, p. 333.

[‡] Symmers, Douglas, *Med. News*, Philadelphia, December 27th, 1902.

[§] Dubreuilh, Fourth International Congress, "Dermatology and Syphilis," Par., 1900.

ophthalmos, but neither of these conditions could be said to be present now. Everyone would recall the family groups of cases of multiple telangiectasis published by Osler and by Parkes Weber. In these cases there had been hæmorrhages from the mucous membranes and especially epistaxis. One must hesitate to place the case now before the Section into the Osler and Parkes Weber group, on account of the absence of family history, though the recent mucous membrane hæmorrhages perhaps brought it nearer to that category. On the whole, Dr. Sibley's original diagnosis of "spider nævus" seemed better to express the ætiology of the complaint than did the term "multiple telangiectasis," which was merely descriptive. A point which favoured the view that in this case the telangiectases were nævoid in character was the fact that the larger vascular patch on the front of the chest had been there as long as she could remember.*

Sir MALCOLM MORRIS, K.C.V.O., said he had seen cases in which spider nævi disappeared from the face spontaneously. He had watched, over a long period of years, the case of a lady who had spider nævi, which came out in crops. He had no explanation to offer for this, but there seemed to be an idea that they were due to exposure during hunting. If such a condition could disappear from the face without any treatment, he did not see why it should not occur in any other part.

Dr. DUDLEY CORBETT said he had seen spider nævi come out during pregnancy, and almost entirely disappear when the pregnancy terminated.

Dr. F. PARKES WEBER said that probably the least uncommon kind of spider angiomata to disappear was that met with in young children, which might disappear when they grew up. But other typical spider angiomata might also come and go. Some were associated with liver disease and jaundice, and if these latter cleared up the angiomata might disappear also. Sir Dyce Duckworth had, he believed, observed illustrative cases of that kind. The case now shown by Dr. Sibley he regarded as belonging to the category to which Sir William Osler first drew general attention under the heading, "A Family Form of Recurring Epistaxis associated with Multiple Telangiectasis of the Skin and Mucous Membranes" (*Johns Hopkins Hospital Bulletin*, Baltimore, November, 1901, xii, p. 333). Dr. Weber's family group of cases was described under the heading, "Multiple Hereditary Developmental Angiomata," in the *Lancet*, London, 1907, ii, p. 160. The epistaxis was doubtless much less of a feature in some cases. From Sir William Osler onwards, all observers of these remarkable cases agreed that they bore no relationship with cancer, either of the abdomen or elsewhere; and it was somewhat confusing to have that idea brought forward now. Another kind of tiny multiple angiomata often developed on the trunks of old and degenerate people, and might therefore occasionally be associated with the onset of visceral carcinoma. Typical spider angiomata and hair-like branching telangiectasis of the skin of the face were not rarely associated with the bleeding multiple telangiectasis of Osler's group. In regard to the term "spider nævus" or "Nævus araneus," he (Dr. Weber) thought that, as the condition was often not congenital, the term "spider angioma" or "spider telangiectasis" was preferable.

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* A very complete summary of our knowledge of "multiple telangiectasis" is given in a paper by Dr. Colcott Fox in the *Brit. Journ. Derm.*, May, 1908, xx, pp. 145–62.

The condition might indeed develop relatively late in life, as in some patients with hepatic cirrhosis, etc.

Dr. MacCormac said that when he was Registrar at Middlesex Hospital Dr. Pasteur had a patient under his care with exophthalmic goitre who had a crop of spider nævi over the body. They completely disappeared before she left the hospital. She had had a similar skin condition when suffering from gastric ulcer, four years previously. The skin had been quite free from these spider nævi in the interval between the two diseases; clearly, therefore, it was possible for them to disappear completely.

Dr. Whitfield said he was in agreement with Dr. Adamson. He considered that the term "spider nævus" should be reserved for an angioma that was a nævus, *i.e.* a congenital angioma, and one that looked like a spider. He had the idea that these telangiectases were in all probability late developing congenital abnormalities, and therefore fell properly under the head of nævus, just as moles did. He had at the present time under his care a girl, past the onset of puberty, in whom soft moles were developing at an alarming rate. There was also another class of telangiectases which were acquired and were not nævi. This type, he believed, were minute aneurysms either from diseased walls, as in angio-sclerosis, and to this type he believed that the telangiectasis of cancer and cirrhosis belonged, or they might be traumatic aneurysms produced by partial rupture of a small arteriole due to violence or the bites of insects. This produced a bulging of the wall, and so the blood was transmitted at higher pressure to the capillaries, which in their turn dilated. He had watched such a condition appear on his own thumb after dropping something heavy on it. These aneurysmal telangiectases occasionally disappeared, and when they did so he thought it was due to clotting in the vessel and fibrosis of the affected area. In this particular case Dr. Adamson remembered and had a photograph of the old lesions, and they were in the same position now as when the case was under his care. That seemed fairly good evidence that the history was erroneous, and he would point out that one of these angiomata had been present as long as the patient could remember. As regards the use of the term "nævus" to signify only a congenital growth, he thought this was now pretty universal among English dermatologists, and had been so for many years by the German school.

Dr. Gray said he understood that some cases of the same kind had been recorded in association with cirrhosis of the liver. Dr. Galloway published a marked example of stellate nævus associated with cirrhosis of the liver. The present patient appeared to be going downhill; she had wasting and marked gastric disturbance, especially in the early morning, and there was a history of hæmorrhage from the stomach.

Dr. Macleod thought the condition was nævoid and of congenital origin. He considered it an advantage to limit the term "nævus" to the congenital anomalies. He did not think that it was possible, from the appearance of the lesions alone, to decide whether they were of congenital origin or acquired.

Dr. Knowsley Sibley, in reply, said he thought the condition should be called one of telangiectasis, the term "nævus" being retained for conditions which were present at or shortly after birth. The present condition could not be called congenital, it having come on at about thirty years of age. The patient was believed to have had a gastric ulcer, and she still suffered somewhat from dyspepsia, but he could not detect any change in the liver or any other signs of abdominal disease. Apparently her present condition did not greatly differ, either locally or generally, from that six years ago, except that the lesions about the face and neck were not now so numerous.

Dr. W. Knowsley Sibley also showed a *case of purpura.* The patient was a healthy woman, aged 27 years, a widow who had never had a serious illness nor rheumatism. Thirteen weeks ago what she described as blotches appeared first on her right arm in crops which faded and left a bruise; a moderate-sized furunculus was present on the left breast, which was painful. She had considerable pyorrhœa alveolaris. Scattered over various parts of the body, especially marked over the posterior axillary folds, where they appeared in more or less parallel lines, looking like scratch-marks, were numerous small subcutaneous hæmorrhages of a purpuric nature; smaller ones were also present on the thighs. On the mucous membrane of the lower lip were remains of recent hæmorrhages, which were also present on the palate. The patient stated that her gums bleed considerably during her menstruation, and often also her nose at these times. Her catamenia, which commenced at the age of thirteen, were usually regular and normal, but the last three periods have been severe, the last one continuing for a week.

The President said the case was clearly a purpuric condition. and its curious distribution in striæ almost suggested a traumatic origin.

Dr. G. Norman Meachen showed a *case of persistent erythema of an erythromelalgic type.* The patient was a girl, aged 15 years, who had been sent to the exhibitor by a medical colleague at the Prince of Wales's Hospital as suffering from Erythema nodosum. For the last two and a half years she was said to have had pain in the legs, relieved by assuming the horizontal position, and the shins were of a purplish-red colour. There was no history of actual joint pains, but eighteen months ago she had pains in her arms "like rheumatism." On examination the shins and calves of both legs were of a deep red colour, and they appeared somewhat tense. The upper and lower margins of these erythematous areas faded gradually into normal skin, and the feet were unaffected. There was no œdema. No nodose lesions of any kind were present. The hands were in a condition of Erythema perstans. The fingers had never become "dead." The heart was normal. A blood-count, kindly made by

Dr. McDonald, gave the following results: Hæmoglobin, 75 per cent.; red cells, 3,296,000; white cells, 7600; small lymphocytes, 28 per cent.; large lymphocytes and transitionals, 7 per cent.; polymorphonuclears, 60 per cent.; eosinophiles, 3 per cent.; mast-cells, 2 per cent.; no poikilocytosis; slight anisochromia. The blood-coagulation time was seven and a quarter minutes. Though presenting some of the features of erythromelalgia, the condition was not wholly typical of that affection.

Dr. F. Parkes Weber said he believed that what was called "Bazin's disease"—"Erythema induratum"—was made up of two constituent factors: one was the actual Erythema induratum, and the other was a kind of Erythema perstans. He considered that the present patient had an Erythema perstans of the legs of the type met with in Bazin's disease, so that one would not be surprised if she, later on, were to develop typical Bazin's disease, though she had not done so as yet. He did not think that the Erythema perstans associated with Bazin's disease need necessarily be of the "Livedo annularis" type ("Livedo reticulata").

Dr. Adamson said the point mentioned by Dr. Weber had occurred to him. Was this a case of early Bazin's disease? He came to the conclusion that it was not, because here there was a dusky, diffuse erythema or cyanosis. In Bazin's disease the erythema was more of the reticular or Livedo annularis type, and not the diffuse form.

Dr. Whitfield said that he was of opinion that the cyanosis accompanying Bazin's disease was not so characteristic that one could attempt to diagnose it in the absence of the nodules. One saw all sorts of cases of fairly marked chilblain circulation, but he would not expect that such cases were going to develop Erythema induratum, because, unless the patient had tubercle, he would not have true Bazin's disease. The condition in this case resembled what the older authors used to call Erythema leve, and it was commonly associated with mitral disease and œdema. That was, of course, not so in this case. The patient had, however, a highly abnormal blood; if the number of red corpuscles was translated into percentage to compare with the hæmoglobin it would be found that there was 75 per cent. hæmoglobin and 71 per cent. red corpuscles—*i. e.* a colour-index of slightly more than 1, and this was a very unusual count for ordinary chlorosis. The girl had also 2 per cent. mast-cells and 3 per cent. eosinophiles, both of which figures were unusual in ordinary blood-counts. The mother said that the catamenia had not yet begun, though the girl was aged over fifteen. Lastly, he said he was sorry that Dr. Meachen had not stated what method had been used in estimating the blood-coagulation time. If this was done at blood heat, as is almost universally the case now, seven and three quarter minutes was astonishingly long.

The President said his general appreciation of the case coincided with that expressed by Dr. Whitfield. He remembered to have seen two similar cases, which passed off after the establishment of the catamenia, although previously of long duration and resistant to treatment.

REVIEWS.

TWELFTH ANNUAL REPORT OF THE INSTITUTE FOR MEDICAL RESEARCH, KUALA LUMPUR, FEDERATED MALAY STATES.*

The bacteriology of leprosy.—In this report there is a detailed account of an important series of investigations carried out in the research laboratories at Kuala Lumpur on the bacteriology of leprosy. These experiments were made with the object of cultivating, if possible, the bacillus of leprosy, and of determining if the disease could be transmitted from man to animals. The material was obtained from the leper asylum there, in which there are upwards of 250 patients. From among these, non-ulcerating cases were invariably selected for experiment.

The following procedure was adopted to obtain leprous tissue:

(1) The skin over and around the nodule was painted with tincture of iodine prepared with 70 per cent. alcohol.

(2) Sterile solution of cocaine was injected into the tissues surrounding the nodule.

(3) A second application of tincture of iodine was made.

(4) When the skin had dried, a horse-shoe-shaped incision was made around the nodule, and a flap of skin reflected from the subjacent tissues.

(5) The skin-flap was held back by means of a silkworm-gut suture, and from the subjacent tissues small pieces were excised. These were inoculated directly on to the media.

In every case a piece of the tissue was excised for microscopical examination. Abundance of leprosy bacilli was invariably found. No possible objection could therefore be raised on the ground that an insufficient number of bacilli were inoculated.

A number of different media were employed. On alkaline blood glycerine agar a streptothrix was obtained which subsequently grew readily on ordinary media and was found to be a contamination. On blood-serum negative results were also obtained. Experiments were then made with the various media on which different observers had claimed to have cultivated the *Bacillus lepræ*, wherever the description of the medium was sufficiently detailed to enable it to be made, such, for example, as on Rost's medium prepared in accordance with Williams' modification, Williams' medium, Bayon's medium, and Duval's media.

The leprous material was obtained from twenty-four patients, and 246 inoculations were made on these different culture media. In no single instance was a culture of the lepra bacillus obtained, but cultures of contaminators were invariably got after three or four days. Certain of these were streptothrices and bacilli which approached in slenderness the leprosy bacillus, but on further investigation showed no genetic relationship with that organism.

Animal experiments were equally unsuccessful. From a leprous patch on the right cheek of a Chinaman suffering from leprosy a bloody fluid was expressed, emulsified in sterile salt solution and inoculated into the supra-orbital region of a gibbon. A slight reaction developed at the site of inoculation, but this soon disappeared and the animal did not appear to be affected in any way. At the close of the year the animal was in excellent health.

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* *Twelfth Annual Report of the Institute for Medical Research, Kuala Lumpur, Federated Malay States.* Director, HENRY FRASER, M.D.

Under cocaine an incision was made with a Graefe's knife in the right cornea of a rabbit; a freshly excised nodule of leprous tissue was then introduced into the anterior chamber between the iris and the cornea at the upper part. Another rabbit was similarly treated. Both operations were successful, but after six weeks there was nothing to indicate that a transference of the disease had been effected.

Three wild rats were kept in captivity for three weeks, and each then received a nodule of leper tissue introduced into a pocket made at the root of the tail. On the following day one of the rats became very ill, was found to be suffering from trypanosomiasis, and by noon was dead. Post-mortem nothing of note was observed. A week or so later one of the rats escaped. The remaining rat was not apparently affected. J. M. H. M.

Treatise on Diseases of the Skin.*

The fact that Dr. Stelwagon's well-known *Treatise on Diseases of the Skin* has reached its seventh edition in twelve years is in itself sufficient evidence of its excellence. The present volume is an admirable exposition of the dermatology of to-day. The revision has been very thorough and the changes have necessitated a resetting of the book. In every chapter we find the most recent advances carefully and judiciously considered, and the wealth of references to original papers will be found of the greatest service to the advanced student. The classification follows the original lines—those of Hebra with Radcliffe-Crocker's modifications. Like all dermatological classifications, it is not without its anomalies, *e. g.* the placing of tuberculosis, leprosy and syphilis in the same class as the benign neoplasms and carcinoma, which, we think, might well be changed without sacrificing the many obvious advantages of the Hebra system.

The descriptions are most clear, and the author's mature judgment is in evidence throughout. The chapter on syphilis is exhaustive, and Dr. Stelwagon's comments on the modern methods of treatment have that conservative tone which the present position demands.

The illustrations in the treatise are very numerous and are well chosen to illustrate the text. The half-tone blocks, in particular, are of a high degree of excellence, and the microscopical sections are admirably reproduced.

Dr. Stelwagon is to be congratulated upon the success which has crowned his labours.

A Monograph on Leprosy.†

This monumental work of 845 pages, or Anthology, was to Dr. Zambaco Pacha evidently a labour of love. After devoting most of his life to the study of leprosy and writing numerous very valuable books and articles on the subject, he finally collected all the literature and material at his disposal and embodied it in this colossal work. He was correcting the last proofs when the Angel of Death came to visit him, and we have now to deplore the loss of one of the most distinguished, energetic, and charming personalities who have ever devoted their lives to the study of one branch of dermatology. But this monograph which he has left behind him will for long keep his memory green in our minds, and as an authority on the history and clinical characteristics of leprosy we shall long remember him.

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* *Treatise on Diseases of the Skin.* By Henry W. Stelwagon, M.D., Ph.D. 8vo, pp. 1250, with 334 illustrations in the text and 33 full-page coloured and half-tone plates. W. B. Saunders Company. Price 25*s.* net.

† *La Lèpre à travers les siècles et les contrées.* By Dr. Zambaco Pacha. 1 vol. gr. in 8°, pp. 845. Paris: Masson et Cie, 1914. Price 12 *fr.*

Especially fascinating is his account of the disease in the earliest times. First of all it appears as the Kushta of the Indies; the Zaraath of the third book of Moses is translated as leprosy in the Greek translation of the Bible, made by seventy-two Jews of Egypt, under Ptolemy Philadelphus, 300 years before Christ; it is the Morbus phenicicus of the Phenicians, the Elephantiasis Græcorum, and so on through long lists of names, as known to various nations.

The author states that Chinese manuscripts prove conclusively that the Chinese were acquainted with syphilis and also leprosy twenty-seven centuries before Christ, and we can hardly expect to have authentic accounts of disease dating much further back than that.

In the preface the author says that there are about four million human beings, mutilated, deformed, corpses walking in putrefaction—according to the realistic expression of St. Basil—moaning in desperation in the tortures of a slow and cruel agony. It is partly to excite compassion on their account that this book has been written, and, if possible, to bring about the amelioration of their lot and the stamping out of the disease.

A realistic and comprehensive account of the disease in various countries is given, and the book contains an account of the clinical appearances, bacteriology, heredity, contagiousness, and treatment of leprosy.

In conclusion, we can only admire the wonderful energy, erudition and devotion which have gone to produce a monograph which will, we feel sure, be in the hands of all who are interested in the subject of leprosy.

J. L. B.

CORRESPONDENCE.

To the Editor of the British Journal of Dermatology.

Dear Sir,—With reference to the case of Angioma serpiginosum which I brought before the Dermatological Section of the Royal Society of Medicine on March 19th last, I expressed the intention of putting together notes of the cases published for the *British Journal of Dermatology*. On looking up the literature of the subject further, I found this had recently been done, and exhaustively, by Dr. Fred. Wise in collaboration with Dr. S. Pollitzer, in vol. xxxi of the New York *Journal of Cutaneous Diseases* (pp. 725 *et seq.* and pp. 916 *et seq.*, with plates, etc.). This article may be of interest to some of your readers.

Yours truly,

George Pernet, M.D.

20, Devonshire Place, W.;
April 29th, 1914.

THE BRITISH
JOURNAL OF DERMATOLOGY.
JUNE, 1914.

EPIDEMIC ALOPECIA AREATA.

By HALDIN DAVIS, F.R.C.S.

It is ordinarily taught that Alopecia areata is not a contagious disease, and most dermatologists, with the exception of the late Dr. Radcliffe-Crocker, have acted upon that assumption, and advised their patients accordingly, without regretting it in any way. Occasionally more than one case has been observed to occur in a single family, either in brother and sister or more frequently in parent and child. These cases are usually explained by reference to the tendency of the complaint to run in families. The family tendency is undoubted and has been noticed by several observers. The present writer collected in the year 1910 a series of sixty cases which either had attended or at the time were attending St. Bartholomew's Hospital and found that in fifteen, *i. e.*, 25 per cent., other members of the family were also affected. In some of these families the possibility of contagion could be definitely excluded because the members who suffered from Alopecia areata had never met one another. Similar results have also been reported by Sabouraud.(1) But from time to time there have been described, especially by French writers, epidemics of Alopecia areata occurring in institutions or in barracks. The reality of these epidemics has been frequently called in question, especially by Sabouraud, who definitely asserts that he has never seen an epidemic of Alopecia areata. He avers that those epidemics which are not ringworm are really collections of patients whose heads are scarred from lesions left by contagious impetigo or boils. Nevertheless, there are certain cases which cannot be dismissed in this summary manner. Two have been previously described in this Journal, one by Dr. Bowen (2) in 1894, and the second by Dr. Colcott Fox (3) so recently as February of last year. Both the reputation of the writers and the descriptions which they have furnished forbid one to believe that these epidemics can be explained away, as Sabouraud explained away the so-called epidemics to which he refers.

During the last few months I too have had the opportunity of studying an epidemic of Alopecia areata occurring in an orphanage of about three hundred children, all girls, none of them more than fourteen years of age. The facts are as follows: In March, 1913, Alopecia areata was first noticed among some of the inmates of the orphanage. No great attention was paid to it, as it was known to those in medical charge that Alopecia areata of the ordinary type is not contagious. The outbreak, however, gradually spread until, at the end of June, 1913, there were no less than 174 cases of Alopecia areata at the orphanage, including two adult foster-mothers and one servant maid. This serious state of affairs naturally evoked a determined therapeutic response, and energetic measures were taken. The most severely affected cases were isolated, the heads were well washed twice daily with a lotion of methylated spirits and soap, and ointments of Beta-naphthol and sulphur were rubbed into the scalp. The scalps were also massaged. In the more severe cases a blistering fluid was also applied. In the case of eight children more grievously affected than the rest the scalp was completely shaved. The epidemic yielded quickly to these measures, and after August there were no fresh cases, and by October, 1913, all the cases had been cured. On March 15th, 1914, a fresh case was observed, and this was speedily followed by other cases with such rapidity that on March 23rd there was already thirty cases detected. The epidemic was first brought to my notice on March 24th, when two of the children who were most severely affected were brought up to me for examination. At first sight I thought they were cases of ringworm, but prolonged search failed to discover any fungus either in the hairs on the affected patches or in scrapings from the scalp. The patches were much more like patches of ringworm than of ordinary Alopecia areata when examined by the naked eye. Unlike patches of Alopecia areata they were not entirely bald even in the centre, but were covered by stumps broken off very close to the surface, so close in fact, that it was difficult to seize them with forceps in order to extract them for examination. Nor did they come out easily like Alopecia areata stumps, even when effectually seized with the forceps. Many of them broke off when pulled out but they did not break easily like ringworm stumps but required the application of considerable force. Others came out entire, with the root attached. Only a few empty follicles could be found. The two children whom I saw on March 23rd, each had about three patches varying in size, the largest about the size of a five-shilling piece. The heads were quite clean, and free from scurf and parasites.

On April 1st I visited the institution, and saw all the patients; they were then forty-two in number. They included one maid, aged 17 years; all the rest were girls below the age of twelve. None of them were so severely affected as the two I had seen the previous week. In many the patches were quite small, not bigger than a pin's-head, and showing only two or three stumps. I extracted hairs from about fifteen of the heads, and subsequently examined them. In none did I find any signs of ringworm. The microscopic examination of these stumps showed that they were swollen at the free end, not cut sharply across, and within the hair, near the seat of fracture, was some opaque substance, the nature of which I am unable to state, but it was evident that it betokened some pathological condition of the hair. The treatment I adopted was that of daily washing the scalp, combined with painting the affected patches with liniment of iodine. Under this *régime* it was remarkable how soon the patients recovered. I had already suggested this treatment for the two cases which I first saw on March 23rd, and when I visited the institution it had then been carried out for a week, and great improvement was manifest. Within six weeks of my visit the epidemic had entirely disappeared.

As to the nature of this epidemic it is interesting to speculate. It certainly was not ringworm, nor was it Alopecia areata of the ordinary type. Both the history of the epidemic, with the involvement of large numbers of children within a very short time, and the clinical picture presented by the patients, negative this idea. There can be little doubt that an infection of some description was the cause, for only thus can be explained the swift spread of the disease. At one time it crossed my mind that perhaps the children might have cut their hair for sheer mischief. Very little consideration sufficed to show that this could not have been the case. In the first place it would have been quite impossible for so many children to have joined in the conspiracy without some one of their number "giving it away," and, besides, examination of the stumps showed that they were certainly not cut, and that they were much too uniformly short to have been pulled. The possibility of some toxic cause common to all the cases also occurred to me; inquiry, however, gave no support whatever to this idea. We must, therefore, be driven to the conclusion that the cause of the epidemic is an organism of some description. As to its nature I have absolutely no suggestion to offer. The rapidity with which the epidemic yielded to treatment with liniment of iodine shows that it must be a very superficial infection, very different in its habitat from the various forms of ringworm. Possibly it is contained in the curious opaque swelling which was often seen in the peripheral end of the stumps which were extracted from the affected patches. This quick arrest of the disease is also to be noted in the accounts of similar epidemics, to which I have previously referred, by Dr. Bowen and Dr. Colcott Fox. In other points in which these epidemics are similar is that all the institutions affected were for girls only. It is probable that they were examples of the same disease as the epidemic which I have recently observed.

Since the name Alopecia areata merely signifies "patchy baldness," it is questionable whether such cases as have just been described should be designated by this term, as the patches, inasmuch as they were covered by short stumps, were not really bald; but, nevertheless, the morbid entity of which they are examples will probably most conveniently be described by the term "epidemic Alopecia areata."

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(1) SABOURAUD.—*Entretiens Dermatologiques.* 1913. p. 119.

(2) BOWEN.—*Brit. Journ. Derm.*, 1894, vol. vi. p. 80; also *Journ. Cut. Dis.*, 1899, vol. xvii, pp. 399 and 507.

(3) COLCOTT FOX.—*Brit. Journ. Derm.*. 1913. vol. xxv, p. 51.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on May 21st, 1914, Dr. J. J. Pringle, President of the Section, in the Chair.

Demonstration of Cases.

The President (Dr. J. J. Pringle) showed (1) a case of *Mycosis fungoides* in a man, aged 64 years, known to many members of the Section, in whom the disease probably began in 1896. He came under the exhibitor's observation in 1899 for mycosic tumours on the face. He had previously suffered from severe syphilis, and had been under treatment for it. He still had a hyperkeratosis of the right palm, possibly of syphilitic origin, but the Wassermann reaction was consistently negative. The tumours of the face were removed by Mr. Jonathan Hutchison, jun., about 1900. Infiltrated erythematous patches and flat tumours had appeared all over the trunk and limbs since that time, but had always been readily "dispersed" by X-rays. The condition had latterly been kept in abeyance by the arc lamp. There had never been any tangible involvement of lymphatics. There was no constant abnormality in the blood-count. Only on the face has there been definite "tumour" formation. The control exercised over the disease by X-rays and light treatment was very remarkable. There was no defect in the patient's general health which could be referred to his skin-disease, nor to the prolonged series of exposures to X-rays.

(2) A typical and extensive case of "*parapsoriasis en plaques*" in a lad, aged 20 years, by occupation a gardener, the disease having begun in July, 1913. It was first noticed as a red patch, about the size of a shilling, on the inner side of the left thigh. Soon afterwards a patch appeared on dorsum of left foot. Neck and face were next attacked, and the scalp became involved (no previous scurfiness). The plaque on the abdomen appeared independently, and had slowly spread to coalesce with those on thighs. Itching all along had been moderate. He has not been X-rayed. Considerable improvement

had occurred during treatment by rest and mild sulphur, resorcin, and salicylic ointments. The case was shown mainly to illustrate a condition formerly usually considered to be pre-mycosic. The involvement of the face and scalp was unusual, and the case presented an undoubted seborrhœic element, which suggested to some Fellows the diagnosis of seborrhœic dermatitis.

Dr. SEQUEIRA showed a woman, aged 52 years, suffering from *leprosy*. She was born in Odessa and came to London eight years ago. The patient was shown at the Royal Society of Medicine on October 16th, 1913.* The case was interesting in connection with the differential diagnosis of leprosy and Mycosis fungoides. The diagnosis had been confirmed by microscopical examination.

Dr. E. S. DORE showed a man, aged 63 years, who presented a *patchy erythematous eruption of dubious nature on the trunk and limbs.* It consisted of ill-defined brownish-red patches of irregular shape and outline, and varying in size from a sixpenny-piece to the palm of the hand. Some of the lesions showed a tendency to central evolution, others were slightly raised above the surface and gave the feeling of distinct infiltration. There was no appreciable scaling and no itching, but even soothing applications such as calamine or lead lotion caused reddening and burning of the affected skin. The first patch was noticed on the abdomen two and a half years previously, and this was followed about six months later by similar but smaller patches scattered over the chest, back, arms, and legs. With the exception of a small recent patch on the right elbow the eruption had persisted and remained almost stationary since that time. The patient had been a shipwright and had visited but not resided in Calcutta; he had suffered from dyspepsia for the past seven years and during the same period he had complained of excessive sweating all over the body. He was now under the care of Dr. Kinnier Wilson for chronic gastritis. There was no anæsthesia of the patches or thickening of the ulnar nerves. The diagnosis suggested by the exhibitor was "Parapsoriasis en plaques," an alternative diagnosis being that of the early stage of Mycosis fungoides, although the entire absence of itching was against the latter.

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* *Brit. Journ. Derm.*, xxv, p. 365.

DISCUSSION ON MYCOSIS FUNGOIDES.

Opened by J. H. SEQUEIRA, M.D., F.R.C.P.

I esteem it a great honour to be invited to open a discussion on a disease of such intense interest to dermatologists as Mycosis fungoides. It is especially gratifying to me to do so during Dr. Pringle's Presidency of the Section, for I owe to him the opportunity of studying two remarkable cases of the disease which he was kind enough to place under my care for long periods. I do not hope in the course of this communication to add anything to the common stock of knowledge, but I trust that the limited survey which the time at my disposal permits will lead to a discussion which will be of service in elucidating opinions on certain debatable points.

HISTORICAL.

The early history of the disease is best studied in the Besnier-Doyon edition of Kaposi's work, and the salient points are, I imagine, so well known that I need only touch on them briefly.

In 1812 Alibert called attention to the disease, which he called "Pian fungoide," believing the condition to be a form of yaws. The patient was a Parisian, and the case is figured in Alibert's Atlas. In the later editions of his work (1835) Alibert applied the name "Mycosis fungoides" to the disease, the name being used to describe the mushroom-like appearance of the tumours. There was no intention of suggesting that the disease was due to fungi. In 1851 an admirable account of the clinical features of the disease was given by Bazin. For some years the centre of interest lay in the French school, but in 1864 Köbner published an important communication, in which he described the disease as a "granuloma." We then come to the stage in which the study of histology made its influence felt, and we have contributions by Ranvier (1869) and Hebra (1872).

If we now turn to the English school of dermatology, we find the disease described by Erasmus Wilson in 1874 as "Eczema tuberculatum," and in the same year by Tilbury Fox as "Fibroma fungoides." Mycosis fungoides received attention at the Medical Congress in

London in 1881. In 1883 Dr. George Thin showed a case at the old Dermatological Society, which he called "Psoriasis hypertrophicus." The patient had been under the care of Mr. Warren Tay. Sections from this case were examined by Dr. Whitfield in 1900, and he decided that the condition was Mycosis fungoides. Other early cases seen at the Dermatological Society of London were shown by Dr. S. Mackenzie (July 14th, 1886) and by Dr. Pringle (February 9th, 1887). The last case was discussed at the Paris Congress. In 1886 Dr. Payne published a valuable paper, with coloured plates and bibliography.

Auspitz first used the name "Granuloma fungoides," which many writers have since adopted. The relationship of the disease to leukæmic and pseudo-leukæmic conditions received much attention from Vidal, Paltauf, and others, and later in Nékám's contribution on the leukæmic affections of the skin. Collections of cases and useful papers thereon have been contributed by Stowers, Hyde and Montgomery, Stelwagon, Johnston, Herxheimer, and others.

I need not dwell longer upon the history of Mycosis fungoides, but proceed to summarise the views held by different authorities as to the nature of the disease. It has been variously believed to be (1) a granuloma (Köbner); (2) a cutaneous form of lymphadenoma—"lymphadenie cutanée" (Vidal); (3) a lympho-sarcoma (Paltauf); (4) a malignant growth of connective tissue, a sarcoma, engrafted on psoriasis and eczema (Kaposi); (5) a bacterial infection, acting directly or through toxins; (6) the last term of a series of dermatoses, which include Pityriasis rosea and the parapsoriases (Brocq).

ÆTIOLOGY.

Sex and age.—To determine the sex- and age-incidence I have examined the data in sixty-one cases in the literature and have added my own thirteen cases (three already published by me). The figures are as follows: Of the seventy-four cases, forty-six were males and twenty-eight females. The ages varied in the males between twenty-one (Stowers) and seventy-five, and in the females between fifteen (Gaston and Sebareanu) and sixty-five. The incidence in decennia is as follows:

	Males.	Females.
Over 70	3	0
Between 60 and 69	7	4
" 50 and 59	12	7
" 40 and 49	15	6
" 30 and 39	5	5
" 20 and 29	4	3
Under 20	0	3
	46	28

The three youngest patients were all females, respectively fifteen (Gaston and Sebarenu), sixteen (Sereni) and seventeen years old (Vollmer). Sereni's case was one of Mycosis d'emblée, and it proved fatal in two and a half years.

Family incidence.—Tilden mentions two cases in one family. I can find no other instance in the literature.

Race.—The disease appears to occur in all races. It has been observed rarely in the negro (Strobel and Hagen). I have not seen a case among the Polish population in the East End of London. This point is of interest, for nearly all the cases of multiple idiopathic pigment sarcoma seen in this country have been in Poles.

Social position of the patient.—It is remarkable that of my thirteen cases seven have been seen in private practice, and two others were above the usual hospital class. I do not know whether this experience is in accord with that of other observers in this country.

Longevity of parents.—Dr. Pernet has called attention to the fact that patients suffering from Mycosis fungoides usually have long-lived parents, and, as a rule, they are in quite good health when they are attacked with the disease.

Syphilis is mentioned in several case histories, but does not appear sufficiently often to be of any ætiological significance. There are many cases on record in which the disease was definitely excluded.

INJURY.

Riecke recorded a case in a man, aged 35 years, in whom Mycosis fungoides d'emblée followed an injury. Radcliffe Crocker reported a case in which a kick on the knee was followed by prolonged suppuration in the head of the tibia, with lymphangitis as a sequel. A year later mycosis developed.

HISTO-PATHOLOGY.

Much attention has been paid to the histology of Mycosis fungoides since the time of Ranvier, and many important papers have appeared on the subject. In this country the most instructive contributions of recent date have been by Galloway and MacLeod, and in Edinburgh by Jamieson and Huie, and their papers form the basis of this part of my communication.

In the *erythrodermic* stage the site of the affection is the upper third of the corium. The normal tissue may be entirely replaced by the granuloma, which may extend in patches into the deeper parts of the corium. The situation suggests, as Miss Huie has pointed out, that the growth begins in the sub-papillary plexus of blood-vessels, and spreads upwards and downwards. The hair-bulbs are invaded, and hairs are usually absent from the sections. The sebaceous glands and sweat glands are surrounded by the cellular infiltration. The vessels are dilated, and in some instances thickened by proliferation of the endothelium.

Considering the lesions in detail, it is noted that the epidermis is secondarily affected; the corneous layer is thinned. The stratum granulosum is also thinned, and may be wanting. The prickle-cell layer and the deeper layers are œdematous, and the rete Malpighii is invaded by cells of the new growth. The granuloma is formed of cells of many varieties lying in a delicate reticulum. These cells are thus classified by Miss Huie:

(*a*) Cells of the fixed connective-tissue type—the structural elements of the granuloma. These are divisible into: (1) Cells with very large oval nuclei, containing little nucleoplasm, but a wide-meshed intranuclear nucleoplasm, and one to three large nucleoli. The faintly staining cell-plasm is drawn out into fine threads, which lose themselves in the intercellular tracery of the granuloma. (2) Smaller cells resembling (1) structurally. These are called the "daughter-cells" by Galloway and MacLeod, and the "characteristic cells" by Leith. (3) Cells with nuclei as large as those of variety (1), but with a much denser reticulum, and more compact and more deeply staining cell-plasm. These cells are often seen in the act of mitotic division. Intermediate cells are seen, many of them with their nuclei being lobed in a peculiar manner. Giant-cells with eight or ten nuclei, more closely resembling the giant-cells of syphilis than tubercle, also occur.

(*b*) Round cells with deeply staining nuclei, and very little cell-plasm—some slightly larger than a red corpuscle, but most of them indistinguishable from lymphocytes. These cells appear to be most numerous where the granuloma borders on the prickle-cell layer, and about the blood-vessels. Mast cells are not numerous. Plasma cells are rare. Polynuclear leucocytes are present in some areas. The endothelial cells of the blood-vessels undergo proliferation.

In the *tumour* stage the granuloma consists of: (1) Large oval cells containing a granular protoplasm and a single nucleus. (2) Numerous small cells, slightly larger than a leucocyte, with nuclei similar to those of type (1). These Galloway and MacLeod regard as daughter cells of group (1). Leith, as already mentioned, considered them the "characteristic" cells of the growth, and this view is shared among others by Herxheimer and Hübner, who style these small mononuclear cells "mycosic" cells, characteristic of the morbid process. (3) Mast cells with basophile granules lying around the blood-vessels. (4) Plasma cells with a single nucleus and densely staining border. Endarteritis of the blood-vessels is present, and the connective tissue is hyaline.

In lymphatic glands, from an advanced case, Miss Huie found "astonishing multitudes" of plasma cells, and the lymph sinuses were crowded with rarefied, much vacuolated cells of the same type.

One practical point emerges from the consideration of the histology of the lesions, and that is: Can we, by a biopsy in the pre-tumour stage, make a diagnosis of Mycosis fungoides before we are able to determine the nature of the disease on purely clinical grounds?

BACTERIOLOGY.

No one has yet demonstrated an organism peculiar to Mycosis fungoides. The records of bacteriological observations are meagre. Stelwagon and Hatch report the presence of Gram-positive cocci; McVail, Murray and Aktinson described a "short, white bacillus;"

Eyre found in Galloway and McLeod's case sarcinæ and the bacillus of Friedländer, which he believed to be contaminations.

The Clinical Features of Mycosis Fungoides.

The onset of Mycosis fungoides is insidious. There is, as a rule, nothing in the condition to suggest the initial stage of a grave and commonly fatal malady. I think we may clearly distinguish three forms of pre-tumour manifestation :

(1) *Onset with pruritus.*—The patient complains of an intolerable and persistent itching, which is unaccompanied by any obvious change in the integument. One of my patients stated that he had been troubled in this way for five or six years. The pruritus usually lasts for several months to several years.

(2) *Onset with a polymorphic eruption.*—In this variety we meet with : (*a*) Macules or plaques of a red or purplish colour. Sometimes bullæ appear on these lesions. The plaques are often urticarial in type. (*b*) Patches of irregular outline suggesting dry eczema or seborrhœic dermatitis. These patches are usually slightly raised above the level of the surrounding tissues. They are ill-defined, and of a purplish, sometimes yellowish, tinge. The surface of these lesions may be : (i) Scaly, resembling psoriasis or the scaly seborrhoide ; (ii) lichenoid, resembling Lichen planus ; (iii) oozing, resembling an eczema ; (iv) covered with dry crusts. In rare cases the lesions are pustules. The trunk may be widely involved ; the face may be affected, and, where there is infiltration, a leonine appearance suggesting nodular leprosy may be produced. Following these lesions, or coincident with them, there are often infiltrated plaques of a peculiar brick-red colour ; the surface of the plaques may be finely mamillated like the rind of an orange, or there may be the characteristic tumours.

(3) *Onset with erythrodermia.*—The erythrodermia may be the first manifestation of the disease, or it may follow one of the stages previously described. The lesions are red or violet plaques chiefly in the flexures. The surface is dry, and there may be a development of fine scales. The eruption may spread until it is practically universal. The patients are then in the condition known as "homme rouge." The hair falls out over the affected parts, and the nails may be involved. The skin becomes œdematous, and there is enlargement of

the lymphatic glands. In extreme cases the lips and even the buccal mucosa are involved, the lesions being white patches and superficial ulcers. In one of my cases feeding of the patient was very difficult. After a variable time nodules and tumours appear. In rare cases death has taken place without the appearance of the characteristic tumours.

Tumour stage.—There is a great variation in the time at which the tumours develop. For instance, in a case of Dubreuilh's there were a few weeping crusted areas upon which fungating and vegetating papules developed. There was no proper pre-mycosic stage, and urticaria developed some months after the tumours. In one of my cases the patient complained of pruritus only for several years before the tumours developed. In other cases we find tumours developing *pari passu* with the infiltrated plaques. In the rare type of Mycosis fungoides d'emblee the growths are the first sign of the disease. The tumour stage usually begins as an infiltrated plaque of variable size of a brick-red colour, with a mamillated surface, or rounded tumours. The mycosic tumour varies in size from a cherry to half an orange. It usually develops on one of the primary lesions, but it may start in apparently healthy skin. The tumours are soft, of a dull red colour, hemispherical or nodular on the surface. They are often constricted about the base. There may be lesions of crescentic or semicircular form. The tumours extend peripherally, and may ulcerate, and rarely become gangrenous. A remarkable feature is the spontaneous disappearance of even large tumours without the formation of a scar or pigmentation. The tumours are found on the trunk, the upper parts of the limbs, the face and scalp (rarely). The glands are usually enlarged, but not always. Alopecia of the affected parts is usual, and it is curious that Giovanni relates a case in a woman, aged 26 years, in which a universal Alopecia areata preceded the outbreak of Mycosis fungoides.

A primary lesion.—Attention has been called to the frequent history of a primary lesion or "herald" patch, as in Pityriasis rosea. In five of my cases this was noticed, the regions being the leg, arm, buttock, back (twice). Other regions noted are: forearm (Stowers), leg (Breakey), external malleolus (Ullman), thigh (Towle), abdominal wall (Crocker), eyelid (Dubreuilh), etc.

Previous dermatoses.—Kaposi believed Mycosis fungoides to be a malignant process engrafted on some previous chronic skin affection, *e.g.* psoriasis, seborrhoides, etc. From time to time we find histories of such an occurrence reported by skilled observers (Radcliffe Crocker, Howard Fox, and others). I believe that such cases are rare, and that what is often taken for a dermatosis of common type is really the pre-mycosic eruption which often closely simulates the psoriasis, eczema, or lichen. In two of my cases I had to revise diagnoses respectively of lichen and seborrhoide before the tumour stage because the presumed simple eruption ran an unusual course.

Lesions of the mucous membranes.—Hallopeau and Weil reported affections of the tongue and of the buccal and pharyngeal mucous membranes. The lesions were white patches and superficial ulcers. I have a similar case now under observation in which the patient is unable to take solid food on account of the pain in the buccal cavity and tongue. Hallopeau and Jeanselme described a case in which progressive gangrene involved the palate. In Breakey's case there were deposits in the tongue and tonsil, as well as in the viscera.

Rarer symptoms.—Symptoms possibly due to metastases have been reported: Hemiplegia (Brandweiner), anasarca (Lenoble), epileptiform seizures (Pringle), hæmophilia (Quinquaud). I have had a case in which dulness and a pleuritic friction were probably caused by a pulmonary growth.

Blood Examination.

It is difficult to compare some of the earlier blood counts with those of recent years, because the observers group some types of cells together. The following facts are culled from ten blood counts, four from my own cases: Polymorphonuclears, 53 to 83 per cent., average 69 per cent; large lymphocytes, 5 to 11·5 per cent., average 7 per cent.; small lymphocytes, 6·5 to 14·5 per cent, average 10·7 per cent.; eosinophiles, 0 to 12 per cent., average 5·6 per cent.; basophiles, 0 to 1 per cent. Large hyaline cells were noted in three of my cases, respectively 2·5, 3·5 and 8 per cent. Lenoble reports 0·5 per cent. mast cells, and 0·5 per cent. myelocytes. In my cases the leucocytes averaged about 9500 per cubic millimetre. There are several higher counts—viz., Hallopeau and Weil's case 12,500, Dr. Abraham's case 13,000, one of Dr. Jamieson's cases, 13,000, and in

Giovanni's case 15,400. In many instances it is recorded that there was nothing abnormal in the blood.

It may, I think, be stated that there are *no characteristic* changes in the blood, and that cases in which a high leucocytic content has been observed belong to another group of affections—*e. g.*, Ramozotti's case, in which the white cells numbered 106,000, mostly lymphocytes.

METASTASES.

In many records of autopsies, it is specially noted that there were no metastases. Kaposi reported one case in which there were metastases in the internal organs. I have recently seen a characteristic case in consultation with Dr. Nixon Groves and Dr. Ironside Bruce in which there was evidence of involvement of the right lung. In Lenoble's case there was a mycosic nodule in the right lung. Breakey reports a case in which there were nodular masses the size of a hazel-nut in the grey and white matter of both cerebral hemispheres, in the right lung, tongue, tonsil, and cervical, axillary, cubital and inguinal glands. Pye-Smith recorded a metastatic nodule in the left adrenal, and Paltauf in the bladder. Riecke reported metastases in the dura mater, kidneys and retroperitoneal glands. Malherbe and Monnier found tumours in the lungs, heart, kidneys, uterus, both ovaries, and pancreas. Brandweiner's patient had symptoms of hemiplegia from a secondary deposit in the brain. In several autopsies congestion and ulceration have been found in the intestines.

THE INFLUENCE OF INTERCURRENT DISEASE.

In several instances the disappearance of the tumours has followed intercurrent disease. In Alibert's case an attack of erysipelas caused the disappearance of the mycosic tumours. Bazin also recorded a case, though Funk believed that the condition was really multiple idiopathic sarcoma. Allan Jamieson, however, records the case of a female patient who had two attacks of erysipelas, which had no influence on the disease. In one of Pringle's cases the tumours disappeared in the course of a fatal attack of pneumonia. In a case reported by Galloway and MacLeod temporary improvement coincided with an attack of influenza.

Duration of the Disease.

The longest case I have found in the literature is that described by Dr. Stopford Taylor—thirty-five years. Several are described as lasting for twenty years or more, and we must all have seen patients who have dragged on a miserable existence for five to twelve years. In some of the d'emblée cases, on the other hand, the duration has been a matter of months only.

The Cause of Death.

I ask for information as to the cause of death in Mycosis fungoides. In my only case which came to an autopsy, death was sudden and due to pulmonary embolism. White and Burns record a case of death from septicæmia due, they believed, to X-ray treatment. Metastases may cause a fatal issue, but in most cases there is a gradual asthenia with intercurrent diarrhœa.

Diagnosis.

In the tumour stage there is little risk of error, when the disease is borne in mind. Syphilis, yaws and leprosy are the affections for which mycosis is commonly mistaken, but the history of the case, and especially the intense pruritus which is so prominent a feature, should usually prevent error.

In the pre-tumour stage there is the greatest difficulty. We are confronted with a large variety of lesions resembling very closely several common dermatoses: psoriasis, parapsoriasis, lichen planus, eczema, the seborrhoides, urticaria, and the erythemata.

As Besnier said: "In all cases of ambiguous pruritic dermatoses which are prolonged and rebellious to treatment, the possibility of the disease in question being the pre-mycosic stage of Mycosis fungoides should be borne in mind." I believe that with experience one can frequently make the diagnosis on clinical grounds alone quite early. The examination of the blood does not help us except to exclude the leukæmic conditions which have certain points of resemblance. In doubtful cases we should certainly have a biopsy made, and see how far the histology of the lesions will help to make clear the nature of the case.

I must not leave the question of diagnosis without a reference to the question of sero-diagnosis. Gaucher, Joltrain, and Brin published a paper on this subject in 1909. The serum reaction was obtained in a clear case of Mycosis fungoides. A positive result was also obtained in two cases of pre-mycosic erythrodermia. In generalised psoriasis and Pemphigus foliaceus it was negative. In the former case mycosis had been suspected, but was negatived by a histological examination. In two cases of syphilis and four other cases the results were negative. Sera from mycosic patients gave a positive complement-fixation reaction with mycosic antigen. Sera from mycosic patients were negative to other antigens. Epithelioma and sarcoma were negative to the mycosic antigen.

A later communication on the same subject was published in 1912 by Gaucher, Paris, and Guggenheim. Have any members of the Section any experience, confirmatory or otherwise, of these important observations, which are not only of value, if available, for diagnosis, but throw an important light upon the possible ætiology of the disease?

The differential diagnosis between the eruptions of lymphadenoma and leukæmia demands consideration. We find that:

In *lymphadenoma* (1) infiltration of the skin appears *late* in the disease. It is an uncommon phenomenon, and the leading features are tense, purplish, discoid infiltrations. There may be two or three such lesions close to each other or they may coalesce to form an irregularly outlined plaque. In the case I have in mind there could be no confusion with Mycosis fungoides, as the lymphadenoma was of rather long duration, and the skin lesions were of late development. The lesions are similar in structure to a lymph follicle. (2) The *pseudo-leukæmic prurigo* or prurigo associated with lymphadenoma is quite different. There is an intense itching all over the body, and this pruritus may be accompanied by papules of prurigo. There is still some doubt as to the exact nature of these papular lesions, some holding them to be definite lymphoid lesions. (3) A general exfoliative dermatitis may occur.

In *leukæmia* (1) growths also occur in the skin. Nékám described cases which he believed to be definite instances of leukæmic infiltration. In an interesting case published by Rolleston and Wilfrid Fox the eruption appeared in the form of small blackish nodules on the lower abdomen in a patient suffering from myeloid leukæmia. These were situated in the true skin, and gradually increased to the size of a raisin, and ultimately spread all over the front of the body. Here the white cells were 73,000 per cubic millimetre; reds, 2,035,000. (2) Diffuse œdema-like infiltration of the face, suggesting leprosy has also been seen. (3) Large subcutanous tumours varying in size from a pigeon's egg to a fist. In Sir T. Oliver's case sixty tumours followed an injury to a metacarpal bone. (4) Growths resembling those in Rolleston and Fox's case, but of normal colour, yellow or brown.

Rolleston and Fox believe that the prurigos and Pityriasis rubra-like eruptions are seen in lymphadenoma, and not in leukæmia.

Cases like that described by Pardee and Zeit, where the clinical picture is that of Mycosis fungoides, but the blood changes that of leukæmia, are rare.

Prognosis.

I am afraid we are unable even in the present day to say that we are able to do much more than relieve our patients and prolong life. The slow, painful course of the disease in many cases may be rendered less severe, and we may give some remission to the intense, agonising pruritus, but can we do more?

Treatment.

The history of the treatment of Mycosis fungoides really begins with Allan Jamieson's paper in the *British Journal of Dermatology*, in 1904. Until that time the exhibition of arsenic and mercury were found to have a slight influence on the disease. In the X-rays we have a definite means by which we can give the patient relief and prolong life, even if we are unable to effect a permanent cure. On this last point I am anxious to obtain the experience of the members of the Section. I record my own experience in the short notes of my personal cases.

Miss Huie's careful microscopical researches show that the rays definitely cause an absorption of the infiltration, and that the corium returns to a healthy condition, and these results apply both to the erythrodermic and the tumour stages of the disease.

Personal Cases.

I have had thirteen cases of undoubted Mycosis fungoides under my observations. There are several others in which I have been in doubt. In two of these the subsequent history proved that the cases belonged to the parapsoriasis group. Of my thirteen cases, ten were males and three females:

Male Patients.

(1) Private patient, aged 30 years, also under Dr. Stowers and Dr. Crocker. Duration, ten years. No syphilis. Erythrodermia with tumours. Rapid improvement under X-rays. Recurrence. Passed out of my hands. Since dead.

(2) Private patient, aged 40 years. Seen with Dr. Nixon Groves. No syphilis. Eruption began in India. Duration, three years. Characteristic erythrodermia with tumours. Improved under X-rays. Glands enlarged ; spleen *nil :* pleuritic rub, and dulness right chest. Death. Believed to have metastasis in lung. No autopsy.

(3) Dairyman, aged 48 years. (London Hospital.) Onset, two years before with "boils." Excessive sweating, flushing; erythemato-squamous eruption scattered over body and limbs, one spot on face; pruritus intense; blood normal; glands enlarged; spleen *nil.* Improved with X-rays.* Present condition unknown.

(4) Private patient, aged 48 years. Erythrodermia for several years; tumours. Relief from X-rays. Radium of no service. Much pain; wasting; diarrhœa. Death.

(5) The patient, aged 56 years, shown to-day by Dr. Pringle. Erythrodermia with tumours. Much benefit from X-rays.

(6) Railway guard, aged 56 years. (London Hospital.) Itching all over body for several years. Dark reddish-brown infiltrated patches on back for twelve months; later, lobulated tumours on back. X-ray treatment. Tumours disappeared, 1910, and have not recurred. Patient shown at Royal Society of Medicine.†

(7) Private patient, aged 58 years. Duration, eighteen months. Began with spot on right arm; many characteristic pale red circinate patches with intense pruritus. No recent information.

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* *Brit. Journ. Derm.*, xxiii, p. 117.

† *Brit. Journ. Derm.*, xxii, p. 23.

(8) Caretaker, aged 58 years. (London Hospital). "Eczema"; tumours for five years; general erythrodermia. Cleared up with X-rays. Recurrence. Diarrhœa; asthenia. Died at home. No autopsy.*

(9) Private patient, aged 62 years (veterinary surgeon). History of "seborrhœic eczema" for several years; ulcerated tumour of back when first seen by writer. Great improvement under X-rays. Relapses. Death two years after appearance of tumour. No autopsy.

(10) Private patient, aged 70 years. Had also been under Dr. Leslie Roberts. Duration, one year. Erythrodermia with tumours. Later history (?).

Female Patients.

(1) Hospital nurse, aged 48 years. Urticaria for two years. Autumn, 1908, a small spot on inner side of right thigh; this rapidly developed into a tumour; tumours rapidly appeared all over the body; groin glands enlarged. Admitted into London Hospital on September 8th, 1909. Diarrhœa and vomiting. Died on September 20th, with sudden collapse. Post-mortem: Thrombosis pulmonary arteries; enlarged glands in groin.

(2) Wife of cab proprietor, aged 53 years. (Dr. Pringle's case.) Erythrodermia with tumours for four years; mucous membranes unaffected; all hair lost. Much improved with X-rays. Relapses, and is now gravely ill. Diarrhœa, etc.

(3) Private patient, aged 57 years. (Dr. Norman). July, 1912: Began with patch on leg, then body; eruption, like Lichen planus. May 6th, 1913: Covered from head to foot; much itching, and furuncles from scratching. Mycosis diagnosed. June 15th, 1913: X-rays all over; all tumours cleared up. April 22nd, 1914: Relapse, with several small growths.

The special points set for discussion were:

(1) Has Mycosis fungoides any relationship with the dermatoses of Hodgkinson's disease and leukæmia?

(2) Is it the ultimate member of a progressive group of dermatoses which includes Pityriasis rosea, and the parapsoriases? or

(3) Is it a disease *sui generis*?

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* *Brit. Journ. Derm.*, xxii, p. 25.

(4) The disease being so rare that very few dermatologists have seen many cases, can a diagnosis be made in the early stages:

(*a*) On clinical grounds?

(*b*) By the histology?

(5) What is the cause of death in the fatal cases?

(6) Of the value of X-ray treatment there can be no question, but can anyone bring forward evidence that the rays are curative?

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DISCUSSION.

The PRESIDENT (Dr. J. J. PRINGLE), in congratulating Dr. Sequeira on his paper and in conveying to him the thanks of the Section for it, said that it was a model of what such addresses ought to be. Whilst omitting no point of importance, and raising some of novelty, it was, nevertheless, concise; while its facts and arguments were marshalled with such a nice sense of proportion that it was admirably calculated to evoke interesting and fruitful discussion.

Sir MALCOLM MORRIS, K.C.V.O., said the subject was a very large one, and members must feel much indebted to Dr. Sequeira for the masterly way in which he had dealt with it. He had had under his care, with Dr. Dore, two cases recently. One was that of a man, aged 52 years, who was shown before the Section a year ago.* The subsequent history of this case was as follows: The X-ray treatment was continued with considerable vigour, forty-six exposures in all being given, with the result that the larger tumours were removed. After a very brief interval there was a considerable relapse. X-ray treatment was resumed, and the greater number of the lesions, which were very large on his body, cleared up, every trace disappearing, and most of those on the face disappeared also, except one over the left eye, which was to him very interesting, because it was a recurrence of the old lesion, the original site of the disease in this patient. This large tumour suppurated to such an extent that the last month the patient died of exhaustion. The diagnosis in this case was, to his mind, difficult, and on first seeing the man he diagnosed sarcoma, for the reason that there had been no preliminary itching, and the patient denied having had any lesions of a pre-mycosic character. This, however, seemed doubtful when one came to examine him more carefully afterwards. When the case was first exhibited, there had been little opportunity for thorough examination. After microscopical examination the diagnosis of Mycosis fungoides was confirmed by Dr. Whitfield, who removed a portion of one of the tumours for that purpose. Even if that microscopical examination had not been made, there would have been no doubt later from the clinical standpoint, because the tumours had then become characteristic. That led him to an important point—namely, to ask histologists how early in the course of the disease a definite diagnosis could be given, and how much earlier than the stage at which it could be recognised clinically. If the histologist could diagnose it earlier it would be an important advance, because the application of X rays could be begun in the early stages. He thought there was considerable danger in using large doses of the rays when the tumours in the disease had become very large and there was a risk of the patient getting general septicæmia. Dr. White's case, in America, seemed to definitely prove that. The same thing applied to tumours in severe leprosy. But no doubt there were members present who could confirm the opinion that the use of X rays in nodular leprosy, when used early, was very beneficial.

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* See *Proceedings*, pp. 145–148, 186.

The second patient was a young lady, aged 28 years, of whom he showed photographs. Six years ago the patient noticed red irritable patches in the groin. These remained stationary for a few months, and were then followed by similar patches on the chest, back, and legs. The disease gradually extended by the enlargement of the patches and the formation of new ones, and when she came under treatment there were numerous lesions scattered over the trunk and limbs, but in this, as in the other case, the hands and feet were not affected. The patches varied in size and shape and in the amount of infiltration, a few were raised above the surface, but there were no definite tumours. A peculiar feature was the deep pigmentation and marked infiltration of the nipples and areolæ. The irritation was severe, and appeared to be generalised, and not limited to the areas of disease. X-ray treatment was begun on June 26th, 1913, four or five patches receiving a third of a pastille dose each day. After all the patches had been gone over twice, treatment was stopped for a month, and at the end of this time a marked improvement had occurred in all the lesions, all were paler and less infiltrated, and some had disappeared, leaving brown stains. The infiltration of the nipples had also subsided, but the pigmentation remained. The itching had also considerably diminished. From September 22nd to

November 1st, half pastille doses were given, all the affected areas being exposed twice at intervals of about a fortnight. From January 16th to February 19th, and from April 2nd to May 6th, 1914, the same process was repeated. Steady progress had been maintained, and at the present time the lesions were pale in colour and very slightly infiltrated. A few fresh patches had appeared, but these had yielded to treatment, although not so readily as the older and more thickened plaques. There had been no relapse of lesions that had completely disappeared. Itching was still present, but was not so severe and was now said to be confined to the affected parts.

There was no great difficulty in making the diagnosis in this case because of the clinical condition; but he had seen another group of cases in which it was difficult to form any opinion, and only in the tumour stage could one be at all certain, and then it was beginning to be too late to give effective treatment. He did not think one could rely on the value of a history of early itching, which had been regarded as one of the prominent symptoms; sometimes the itching had been severe, sometimes so trivial as not to be worth noting.

Dr. Sequeira had asked whether this was a disease *sui generis*, or whether it was rather an ultimate manifestation of a progressive group of dermatoses. His own view was that it was a disease *sui generis*. He considered that these lesions, before the tumour formation, were not examples of various dermatoses, such as eczema, psoriasis, and lichen planus, but that they were the beginnings of Mycosis fungoides. A parallel case was that of Paget's disease, which looked like eczema but was not eczema; it was commencing carcinoma. The symptoms referred to he regarded as the commencement of the malignant process. He had watched them, and they were of a character different from the diseases with which dermatologists were familiar. Light came through the subsequent history: it was an obstinate affection, on which no remedy had any effect. Dermatologists therefore looked to histologists to afford an early clue to the diagnosis, and as to the precise cause and mode of death in the fatal cases. In most of the cases, though not in the metastatic, he considered there was a septicæmia, which one could understand in such a condition. He had said enough to indicate what an enormous benefit X-rays were in this and similar diseases, and their value would be even greater if the means of earlier recognition which he hoped for were secured.

Mr. J. E. R. McDonagh's opinion of Mycosis fungoides was that it was not a disease *sui generis,* but belonged to a class which was best described as the intermediary cutaneous aleukæmic lymphocytomata, a class which also included lymphodermia perniciosa, lymphogranulomatosis cutis and the mycosic erythrodermia of the French authorities. "Intermediary"—*i. e.,* links of a chain—which began as inflammatory lymphocytomata and ended as malignant lymphocytomata. Examples of the inflammatory lymphocytomata were the plasmomata caused by syphilis, tubercle, etc. Examples of the malignant lymphocytomata were the lymphosarcomatosis and the plasmosarcomatosis cutis. The intermediary types could either approximate the innocent or the malignant end of the lymphocyte chain. Hence cases of Mycosis fungoides could be met with which were typical plasmomata, while others consisted of cells which were undoubtedly malignant. The type of cell constituting the growth varied according to the phase in the life history of the lymphocyte which was called upon to protect the host. That is to say, either the lymphocyte itself responded or the response came in the form of the cell which the lymphocyte gave rise to—viz., the plasma cell, or the embryo lymphocyte, or the endothelial cell—the progenitor of the lymphocyte would be implicated. If the attacking force was not severe the tumour would consist of plasma cells or lymphocytes only. If the attacking force continued the protoplasm of the plasma cells would break up, or the protoplasm would become granular and ultimately disappear, leaving behind the nucleus, which would divide and subdivide, each subdivision containing one or more nucleoli. These would ultimately behave themselves as cells—act pseudo-parasitically as to constitute malignancy. The same changes could be observed in the lymphocyte, the embryo lymphocyte and the endothelial cells. The intermediary cutaneous aleukæmic lymphocytomata began as pure inflammatory lesions; therefore the so-called premycosic stage of Mycosis fungoides could not be diagnosed by histological means alone. It not infrequently happened that when the cases belonging to this group recurred the histological characters of the lesions were more malignant than the primary lesions, and the suggestion was offered that in all probability X-ray treatment increased the tendency towards malignant change. The attacking force was considered to be a continuation of the factor which was the original cause of that form of inflammation which histologically consisted of lymphocytes and plasma cells—viz., tubercle, syphilis, etc. The intermediary cutaneous aleukæmic lymphocytomata were lymphocytomata which began in the skin. Analogous lymphocytomata could begin in the lymphatic glands or in other glandular structures. The former comprised what was called Hodgkin's disease and the latter Mikulicz's disease both of which showed histological variations according to the phase in the life-history of the lymphocyte attacked and the concentration of the attacking force, analogous to those met with in Mycosis fungoides. The remarks were from a paper which will appear with illustrations in a future number of the *British Journal of Dermatology* and the paper forms the second part of a general discussion on the relationship between inflammation and malignant disease, the first part of which is published in the *Archiv. f. Derm. u. Syph.*, cxx, p. 289.

Dr. Douglas Heath (Birmingham) said he did not regard the small contribution he could make to the discussion as important, but he felt that Mr. McDonagh had rather combated the view which he had himself come to assert, for he considered that the previous workers in this histological field had rather established a view opposed to that now urged by the last speaker. He had seen Professor Leith's sections of Mycosis fungoides, and he had demonstrated to him (the speaker) the daughter cells in such large numbers in the typical nodules of the disease that he was much impressed by his remarks in comparing those cells and the general appearances of the tumours with the cells seen in sarcomata, gummata of syphilis, and other granulomata. The multiform character of the cells of the nodules in Mycosis fungoides seemed, to his mind, convincingly different from the plain type seen in Hodgkin's disease or other lymphatic nodules. The different types of epitheloid cell, the small daughter cell, and occasionally a few plasma cells—that multiplicity of cell—seemed to be in favour of Mycosis fungoides, as opposed to sarcoma, etc. Clinically, he was unable to distinguish Mycosis fungoides of the d'emblée type from sarcoma. He was indebted to Dr. Wynne, of the General Hospital, Birmingham, for the opportunity of seeing the following case: A man had a number of fungating tumours on the abdomen, of five months' duration, and they ran a rapid course to a fatal issue. He was found to have secondary nodules in lung, mediastinum, kidneys, liver, cerebellum, and, in fact, all over the body. But clinically, he did not think one could distinguish it from Mycosis fungoides. When confronted with a section, however, there was no difficulty; he had sections under the microscope for members to see; they definitely showed that the lesion was a mixed-cell sarcoma. His experience of cases of Mycosis fungoides had been small, but he would mention one case, aged 74 years, the father of a doctor, whom he was asked to see only two days before his death, for the purpose of seeing if he could arrive at a diagnosis. He did not think he would ever forget the case, for the whole of the head was enormously swollen, the ears were like those seen in a lepra case, though not so misshapen, the lips were greatly enlarged so that the whole expression was altered, and there was a moist eczema over the head and neck. Tumours were present in large numbers on the abdomen, many of them fungating, there were enlarged lymphatic glands, the temperature was 103° F., and he gradually sank and died.

Dr. LANCASHIRE (Manchester) said he had had a slight clinical experience of the condition, though that was not quite recent. He was particularly interested in the second case described by Sir Malcolm Morris, and of whom he showed photographs, for he originally saw the patient himself in Manchester, and his provisional diagnosis was that it was the pre-mycosic stage of Mycosis fungoides. It was interesting to him that this seemed to have been correct. Some years ago there was a small run of these cases at Manchester, for he saw some half-dozen cases in three years, of which he had photographs. They were of the ordinary type, some very advanced; and, from the histories given, all seemed to have commenced with a dry eczema—*i.e.*, pre-mycosic lesions. Pruritus was marked, and the course was the usual one, though the lives of some were prolonged a year or two by X-rays.

Dr. BOLAM (Newcastle) said he had seen three cases of the condition in the last two years. One was diagnosed in London and sent on to him afterwards, because the patient lived in his district. He wished to emphasize what had been said as to the danger of using massive doses of X-rays. An autopsy was held on one of the cases, but nothing in the way of metastases, or any feature which might throw light on the ætiology, was found. All the cases of the condition he had seen had been in men of middle age, and two had been followed to their fatal issue. To him the nature of the disease remained a mystery, and he came in the hope of hearing it unravelled.

Dr. Nixon (Bristol) said he had had but a small experience of the condition under discussion. He had seen only two cases since 1909. One was that of a man, aged 65 years, who just passed through his out-patient department—*i. e.*, for one day. A count showed his blood to be normal. On an attempt being made to induce him to enter the infirmary for further treatment and investigation, he fled, and he (the speaker) had heard no more of him. The other case was that of a young woman, aged 26 years. There was neither evidence nor history of syphilis. The commencement was a rash, looking like Tinea versicolor, and it was treated for some time under that idea. After nine months she began to develop tumours, in the usual way on the erythrodermic patches. The sections showed typical Mycosis fungoides. Her blood-count was normal. Under X-rays the behaviour was that usually seen. The marked feature in her case was intense suppuration. Instead of these tumours fungating, they became crateriform, somewhat like blastomycosis. Vaccines were tried, but without the slightest improvement. One interesting point which he observed in connection with that case, and which he thought excluded any connection with lymphadenoma, was the character of the glandular enlargement. Although the suppuration was extreme and widespread, and though there were tumours from scalp to feet, the glandular enlargement never resembled that of lymphadenoma; the glands were more like those seen in inflammatory conditions. She had not an enlarged spleen, and the only departure of the blood condition from the normal was some increase in the polymorphonuclears, probably due to the suppuration. She finally became covered from head to foot with huge fungating tumours and died suddenly from exhaustion at the end of two years from the first onset of the disease.

Dr. Kenneth Wills, in response to the President's invitation, said he missed the only case which ever passed through his hands. It was a case of Mycosis fungoides d'emblée, in which the tumour was on the frontal part of the scalp, in a position at which a man milking a cow would touch the animal, and he thought it was a case of trycophyton fungus. But he could not find the fungus, and he took a section to the pathological laboratory, where it was pronounced to be endothelioma. He sent the case over to the surgeon, and lost sight of it entirely afterwards. He had heard that subsequently other tumours had developed and had been removed by the surgeon. Eventually the patient was sent to London, where he had been in the President's hands, and Dr. Pringle diagnosed it as Mycosis fungoides.

The PRESIDENT showed photographs of the case referred to by Dr. Kenneth Mills, before and after treatment by X-rays, which had proved (temporarily at least) extremely beneficial. It was the example of Mycosis fungoides à tumeurs d'emblée recorded and illustrated in the last (April) volume of the *Proceedings* of the Society.

Dr. GORDON WARD said he was not a dermatologist, and he had no cases to recount, but he would like to submit a criticism from the point of view of clinical hæmatology on the cases published as instances of Mycosis fungoides, and brought before the Section as such. He spoke of the cases in which there was also considerable enlargement of glands and spleen. Probably the dermatologist looked at such cases from the standpoint of their being uncommon and interesting skin lesions, and probably classified them, if at all, according to those skin lesions. The hæmatologist, on the other hand, looked upon them as generalised affections of the lymph tissues, and would first want to know what was the nature of that generalised affection before considering the local skin manifestation. From that standpoint the analogy between Mycosis fungoides and Hodgkin's disease and leukæmia appeared to be close; though perhaps not so close as was supposed by the speaker who suggested that they were phases of the same process. They had points in common; they tended to be chronic, they might all produce skin tumours, the exact nature of which had puzzled dermatologists, they all reacted favourably to X-rays at first, while, equally certainly, they tended to recur. He would like to hear made plain what was the relation of these glandular enlargements to the skin lesions in Mycosis fungoides. If the mycosis lesion was not coterminous with the original structure of the gland, the glanular enlargement was, presumably, in the nature of a secondary deposit from a malignant focus. Otherwise it was closely allied to leukæmia, which was a generalised affection, not a primary tumour on the skin with secondary deposits in the organs. Moreover, were there any clinical features peculiar to mycosis glands? Leukæmia was not, it might be noted, a disease which appeared as an unexpected termination of Mycosis fungoides, or of anything else. There was, indeed, a form of secondary leukæmia, but this was more or less defined, and was not likely to cause much difficulty. Leukæmia was so from the beginning, even if there were no blood changes, or they did not develop until later in the disease; in experimental leukæmia some infected animals never had blood changes, but they all had characteristic changes in the organs. The confusion with Hodgkin's disease was more easy than with leukæmia. He would regard them as separate diseases, although in the same general class, for which he did not think a specific name had yet been found. Some of the sections just demonstrated on the screen he thought would do equally well for those of Hodgkin's disease, for the lesions in the skin in that disease were not necessarily the same as those in the glands. He had some sections from a typical case of Hodgkin's disease, from all the organs, and all, except those from the skin, were typical of Hodgkin's disease. The latter might not have been recognised as Hodgkin's disease if it had not been for the associated gland lesions. Among other differences, there were no giant cells in these skin lesions. With regard to the cause of death in this condition, he would like to make one comment. Probably members had read of the recent death of a radiologist in Italy. All his organs, especially the blood-making ones, were found to be absolutely aplastic (he died with a bottle of Blaud's pills by his bedside). One heard of large doses of X-rays being given to these cases of Mycosis fungoides. It would, therefore, be interesting to know whether death in any of these cases bore any relation to the X-rays given. One would like to know how the organs appeared, and compare such with the condition of the viscera of the radiologist he had mentioned.

NOTE.—The Report of the Adjourned Discussion which took place at the meeting on June 4th is unavoidably held over for reason of space to the July issue.

The Editor regrets the delay in the publication of this number of the Journal. Changes at the Royal Society of Medicine made it impossible to obtain the report of the Section at the usual time.

CURRENT LITERATURE.

MYCOSIS FUNGOIDES OCCURRING IN A NEGRESS. BERNARD WOLFF. (*Journ. Cut. Dis.*, vol. xxxii, No. 6, p. 440.)

So far only three cases of Mycosis fungoides have been recorded in negroes, the present case constituting the third. Two cases were reported by Strobel and Hazen, of Baltimore, one in a mulatto and the other in a full-blooded negro. The following is a brief abstract of Wolff's case: The patient was a full-blooded negress, born in South Carolina, aged 30 years, and the mother of three healthy children. Occupation, cook. When she was twenty-one a scaly eruption, simulating nettle-rash and characterised by immoderate itching, developed on her face and neck. This condition remained for seven years, then disappeared, and reappeared some months later on the face, neck, and trunk, disappeared and recurred once again. Two years later the scaly patches became thickened and elevated, and dome-like masses appeared; the patient's health then began to fail, she lost weight, felt languid, and became unfit for work. The chief characteristic of the eruption was the presence of patches like psoriasis of the rupioid type and others resembling hypertrophic Lichen planus. To these lesions were added more definite tumours. An account of the histological changes was given. The subsequent history of the case is not reported.

J. M. H. M.

ORIENTAL SORE IN THE AMERICAS, WITH REPORT OF A CASE. ERNEST L. MCEWEN. (*Journ. Cut. Dis.*. April, 1914, vol. xxxii, p. 275.)

IN this communication a case of oriental sore in which Leishman bodies were demonstrated is reported, which occurred in Chicago in a man who had returned from a scientific expedition in South America, where he had been journeying in Peru. The lesion was situated on the helix of the left ear and consisted of a superficial ulcer covered with a thick crust. The margins of the ulcer were irregularly sloping and the base was not definitely indurated.

This affection is of somewhat frequent occurrence in South America, has been reported also a number of times in Panama, and is known to be endemic in Mexico as far north as 21·5 N. latitude.

J. M. H. M.

NAEVUS FOLLICULARIS KERATOSUS. CHARLES J. WHITE. (*Journ. Cut. Dis.*, March, 1914, vol. xxxii, p. 187.)

IN this contribution a peculiar type of follicular nævus is described in a man aged 24 years. The lesion formed a band which extended round the right thorax from the lower angle of the scapula to the nipple and varied from an inch to an inch and a half in width. It began to appear at the age of ten and had progressed in extent ever since. The affected skin was raised and had a sieve-like appearance, being made up of a mass of widely dilated follicles containing horny plugs. A microscopical examination showed that the sebaceous glands were unaffected but that the condition consisted of dilated follicles with hypertrophy of the lining horny layer.

J. M. H. M.

A CONSIDERATION OF TWO OUTBREAKS OF SO-CALLED PEMPHIGUS NEONATORUM. Andrew Porter Biddle. (*Journ. Cut. Dis.*, April, 1914, vol. xxxii, p. 268.)

The outbreaks which form the subject of this paper occurred in a private woman's hospital and in a public lying-in institution. In these a number of babies were affected and also certain nursing mothers and nurses, the nursing mothers being attacked on the nipples and the buttocks while the nurses were affected on exposed parts of the body, such as the fingers, ears and face. In the adults the eruption was mild, resembled ordinary Impetigo contagiosa, and yielded readily to treatment, while in the infants the lesions were much more extensive and severe and were especially prevalent over the trunk and buttocks. The cases were typical of the so-called Pemphigus neonatorum. In a few instances the temperature rose scarcely above the normal while in others the outbreak was accompanied with high fever and severe constitutional symptoms. In these epidemics there were no fatal results. No specific organism was found though *Staphylococcus pyogenes aureus* was demonstrated in the blisters. The treatment adopted was the continuous application of black wash, enforced isolation, and extreme care in nursing.

J. M. H. M.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

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Dermatitis Exfoliativa. A. Ravogli. (*Journ. Cut. Dis.*, 1914, vol. xxxii, p. 224.)

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Herpes Zoster Generilisatus with Spinal Cord Lesions. v. Zumbusch. (*Archiv f. Derm. u. Syph.*, March, 1914, vol. cxviii, No. 3.)

Herpes Zoster in a Patient with Spinal Cord Syphilis. H. G. Alderson. (*Journ. Cut. Dis.*, 1914, vol. xxxii, p. 230.)

Herpes Zoster of the Auricle and Mastoid Region. H. J. Davis. (*Proc. Roy. Soc. Med.*, Otol. Sect., 1914. vol. vii, p. 34.)

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Lichen Planus of the Glans Penis. F. Wise. (*Med. Record*, 1914, vol. lxxxv, p. 388.)

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Syphilis of the Rectum, Two Cases Treated by Subcutaneous Injections of Cacodylate of Soda. J. E. PIRRUNG. (*Urol. and Cut. Rev.*, 1914. vol. xviii, p. 19.)

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Wassermann Reaction, The Technique of, with Special Reference to the Use of Antigens containing Cholesterin. C. H. BROWNING. (*Lancet*, 1914, vol. i. p. 740.)

Wassermann Test, Value of Absorption Methods in the. M. P. OLMSTEAD. (*Med. Record*. 1914, vol. lxxxv, p. 341.)

REVIEW.

CARBON DIOXIDE SNOW.*

ANY book by Dr. Hall-Edwards is always welcome, and especially one which deals with a subject of such practical importance as the therapeutic uses of solid carbon dioxide. This substance is now so extensively used in dermatology that it necessarily has a considerable literature, but of this the author has not taken quite sufficient notice, although he describes the method he himself uses in full detail. It does not appear to us to matter much how the stick of snow is prepared so long as it is correctly applied when made, and for simplicity nothing comes up to the old rolled towel or chamois leather bag. We think the author praises unduly the therapeutic advantages of a mixture of solid carbon dioxide and ether or absolute alcohol. This mixture was first tried in America some years ago by Dr. Judd, of Rochester, and is now practically discarded by some of the leading dermatologists. The very doubtful statement is made that this mixture produces a lower temperature than the snow in the solid form.

The application of the snow in various diseases is fully discussed by the author, and he agrees with other writers that for simplicity and rapidity this method of treatment has many advantages. It is unfortunate that the name of one author, from whom several quotations are made, should be incorrectly spelt, and that the name of another writer, who is also quoted from, is not given in the list of references at the end of the book, but these mistakes can be rectified in future editions.

X.

BOOKS RECEIVED.

Progressive Medicine. Vol. xv, No. 4. Edited by HOBART AMORY HARE, M.D., and LEIGHTON F. APPLEMAN, M.D. LEA and FEBIGER: Philadelphia.

La Lèpre à travers les Siècles et les Contrèes. By Dr. D. A. ZAMBACO PACHA (de Byzance). 8vo. xii + 845 pp. MASSON & Co.: Paris. Price 12 *fr.*

The Biology of the Blood-Cells. 8vo. Pp. 392. With 7 Coloured Plates and 75 microphotographs, etc. JOHN WRIGHT & SONS: Bristol. Price 21*s.* net.

The Medical Who's Who, 1914. Pp. 812. LONDON AND COUNTIES PRESS ASSOCIATION. Price 10*s.* 6*d.* net.

Les Teintures Capillaires à la P. Phenylene Diamine. 16 mo. Pp. 96. With Figures. E. ROUSSEAU. Paris: Lutraire Legrand. Price 3 *fr.*

Riedels Berichte—Riedel's Mentor. 58. Auflage, 1914. By J. D. RIEDEL, A. G. Published by THE J. D. RIEDEL CO., London, E.C. Pp. 467.

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* *Carbon Dioxide Snow: Its Therapeutic Uses.* By J. HALL-EDWARDS. Pp. 78; 3*s.* 6*d.* net. London: Simpkin, Marshall & Co., 1913.

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ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on June 4th, 1914, Dr. J. J. PRINGLE, President of the Section, in the Chair.

DISCUSSION ON MYCOSIS FUNGOIDES.*

Dr. JAMES GALLOWAY, in resuming the debate, said that in discussing the question of Mycosis fungoides we were placed in a position, the dangers of which had been carefully impressed upon us from our earliest youth—namely, that conclusions arrived at by reasoning from analogy were bound to be fallacious. If the foundations were not good any superstructure must be imperfect. The foundations of statements as to the cause of Mycosis fungoides were imperfect in so many directions that it was impossible to draw trustworthy conclusions at the present time. The only possibility of discussion was to use the process of argument from analogy as carefully as possible, recognising its many failures.

So far as the disease itself was concerned, he would be inclined to say that the condition was *sui generis;* from the point of view of what we saw in our patients, and also from the practical aspect of treatment this attitude of mind was well warranted. But consideration should also be given to information derived from other sources and especially concerning diseases which presented analogies to Mycosis fungoides. Two of these diseases had been especially mentioned by Dr. Sequeira in his opening speech, namely, the condition known in this country as Hodgkin's disease on the one hand, and on the other the various forms of leukæmia. Looking at these two diseases from the clinical point of view, there were certain analogies which could not fail to impress the observer. In Hodgkin's disease there were two cutaneous conditions associated with the malady. First a generalised dermatitis associated with the appearance of pruriginous points and macules and pigmentation, often with lichenification, and frequently with pruritus of the most intense degree. Of this condition he had had some clinical experience, and had drawn attention to it on previous occasions. He did not think there was any state in which the suffering from pruritus was more intense than in this complication of Hodgkin's disease. The second condition was the formation of papules and nodules presenting cutaneous tumours usually of small size, but sometimes as large as a broad bean, having histological features identical with the lymphatic gland tumours characteristic of the disease. In the first condition there was no clear evidence of the formation of new cellular tissue in the skin or subcutaneous tissues, in the second there was definite tumour formation.

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* Adjourned from May 21st.

So also in the true leukæmias there were two conditions affecting the skin. First, a generalised pruriginous condition associated with thickening, lichenification, and often pruritus; secondly, the formation of true tumours resembling the nodules seen in the viscera. He had seen this condition in the myelocytic variety of the disease. No doubt it occurred also in the lymphocytic type.

Similarly in Mycosis fungoides there occurred two cutaneous manifestations. First, a dermatosis polymorphous in character, presenting certain resemblances at times to urticaria, to eczema, to psoriasis, and occasionally preceding for a long period of time the later developments of the disease. This condition was succeeded by the tumours of Mycosis fungoides which were its most remarkable feature. Therefore, in these three maladies a generalised disturbance of the skin, accompanied or succeeded by the development of tumours, were outstanding features. The presence of the generalised early, or prodromal, eruptions brought to mind other prodromal eruptions of infective diseases, and lent colour to the view which seemed to be the probable one that Mycosis fungoides, as well as the other diseases alluded to, were the result of some unknown infection of the human body. This explanation had long been suggested in the case of Hodgkin's disease, was frequently discussed in the case of leukæmias and strongly supported by the phenomena of Mycosis fungoides.

Referring to the histological structure of the tumours in Mycosis fungoides, he thought that the evidence was greatly in favour of the contention that the tumours were rather of the nature of what used to be called the "infective or specific granulomata" than of what we still described as new growths, such as a sarcoma or lymphosarcoma. Indeed, the evidence derived from histology was less convincing of the distinct nature of these diseases than the clinical evidence. The clinical features gave the support to their differentiation into separate categories.

Members would recollect the paper written by Dr. MacLeod and himself some years ago,* based on cases which had come under observation at Charing Cross Hospital. The chief points of interest noted in the histology at that time were: (1) The resemblance of the new growth to the granulomata; (2) the great fragility of the new cells forming the granuloma; and (3) the peculiar characters of these cells which had now been mentioned by various investigators. The fragility of the granuloma might perhaps be taken as some indication of the special character of the infection, as compared with similar granulomatous growths.

In reference to the diagnosis, the speaker would feel more secure in arriving at a positive conclusion from studying the clinical appearances of the disease rather than the histological features alone, but for a satisfactory diagnosis information must, of course, be sought from both these sources. No evidence was yet forthcoming as to the exact nature of the infection producing Mycosis fungoides. Some speakers seemed inclined to fall back on the suggestion that syphilis or an infection resembling syphilis might be the underlying cause, not only of Mycosis fungoides, but also of the two analogous conditions to which he had referred. To parody an old saying, they felt inclined to take refuge in the argument of the *omne ignotum pro syphilitico.* So far as syphilis was concerned there seemed to be no evidence that this infection was concerned in any degree with the production of Mycosis fungoides; nevertheless, certain clinical observations could not be completely put out of court of the remote relationships of syphilis to the two other conditions, and it might well be that an infection of similar nature to the syphilitic infection may produce Mycosis fungoides, and that the infective element still remains to be discovered, possibly as an ultra-microscopic object.

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* *Brit. Journ. Derm.*, 1900, pp. 153–187.

In reference to treatment, the argument by analogy might also give some information. Anyone who had seen cases of Mycosis fungoides treated by X-rays could not fail to recognize the value of this therapeutic measure in modifying the course of the disease. It caused the tumours of the disease to shrink and disappear, prevented septic infection, and helped much in rendering life bearable to the unfortunate sufferers. So also in some cases of Hodgkin's disease and of the leukæmias, the use of the X-rays appeared to be of definite benefit, but guidance and even warning could be derived from the use of X-rays in both these states. He had had some experience of the treatment both of leukæmia and of Hodgkin's disease by means of X-rays. There seemed to be no doubt of the benefit derived in some cases, but danger occurred either by giving an overdosage of X-rays at one or two sittings, or by an overdosage over a long period, and by repeated applications. In the first case severe febrile reactions were apt to occur, and the patient was, at any rate temporarily, damaged. But more important was the damage which seemed to ensue from repeated applications over considerable periods of time. There seemed to be distinct evidence that in such cases the blood condition tended to deteriorate, a severe degree of anæmia was produced, the white blood cells, at first, it may be, reduced in number to the benefit of the patient tended to shrink below the normal, and finally a condition which has been described as an "aplastic state" of the blood-forming tissues and blood resulted. In Mycosis fungoides overdosage by a single application had been known to produce severe reactionary illness, and it was possible that repeated dosage might also tend to produce the aplastic condition seen in cases of leukæmia.

It must be recollected that the dermatosis and tumour formation of Mycosis fungoides should be looked upon as the reaction of the tissues to the infective cause, possibly even an attempt to neutralize or eliminate the poison. Too vigorous destruction of new granulomatous tissues might well damage a patient by disarming him of natural methods of protection.

Considerable doubts evidently remain as to the possibility of cure by means of X-rays. There was no doubt that cases had recurred after the use of X-rays. Possibly the safest line in X-ray treatment was to confine it to the destruction of the actual tumours as they appeared, and the prevention of the severe septicæmia which seemed to be frequently the cause of death in the disease.*

Dr. STOWERS: Concerning the incidence of sex and age, I published in 1902 a summary of thirty-one cases which had been variously reported during the previous ten years, which included twenty-one males from twenty-five to seventy-two years of age, and seven females whose ages ranged from twenty-six to fifty-seven years, and three of which the age and sex were unstated.

Since that time fourteen cases have been reported by our members, the ages of the former ranging from twenty-nine to sixty-three years and the latter from forty to sixty-five years.

According to these combined groups it would appear that the Mycosis fungoides was two and a half times more frequent in males than females.

Dr. Sequeira's table of cases, which is more extensive than mine, relates to forty-six males and twenty-eight females, which increases the proportion of the latter to more than a half.

However, the fact remains that the disease occurs more frequently in males. I have never seen it in more than one member of a family.

Concerning the reported longevity of the parents of such patients, as Dr. Pernet has pointed out, I have no information to give. Dr. Sequeira has distributed a paper containing six specific questions to which he invites special attention. The first is:

Has Mycosis fungoides any relationship with the dermatosis of Hodgkin's disease and leukæmia? In this connection I would refer to a remarkable case of multiple tumours of the skin, which was exhibited in October, 1907, by Dr. Lediard, of Carlisle, at the first meeting of the Clinical Section, which I had the opportunity of seeing. Numerous subcutaneous nodules were present in a male patient, aged 65 years, the first appearing on the left side of the chest-wall. At that time an exact diagnosis was impossible. Two months later the nodules had enlarged and progressive general wasting ensued, an examination of the blood showing a considerable increase of the large mono-nuclear leucocytes.

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* With reference to this point, it may be mentioned that Case 1, described in the paper alluded to, died from septicæmia three months after leaving hospital in July, 1900. Dr. Lawrence Potts wrote as follows: "Our patient, Mrs. G—, who had Mycosis fungoides, died a shocking death last July, the discharge and disintegration of tissue being awful."

Subsequently the liver enlarged and broncho-pneumonia supervened, with further glandular enlargements and cutaneous swellings. The patient died in January, 1908, some free hæmoptysis occurring the third day before death. For a time it was considered doubtful whether the case was one of sarcoma, syphilis, or Mycosis fungoides. Later, it was suspected to be of leukæmic origin. Shortly before death the cutaneous and glandular swellings underwent a striking diminution. The final report of the Committee of Investigation was that—

"The lesions were due to some poison which gave rise to degenerative changes in the tissues involved, associated with hæmorrhage and œdema. There was no evidence to indicate the origin or nature of the poison."

From a diagnostic point of view this case was of considerable importance in relation to our subject, but it fails to prove any relationship between Mycosis fungoides and the dermatoses of Hodgkin's disease and leukæmia.

Although histologically in leukæmia the regularity in the size and shape of the round mesoblastic cells and other changes in the skin may make it easy to differentiate from Mycosis fungoides, clinically the distinction is more difficult. The skin lesions of leukæmia (and pseudo-leukæmia) have by several observers been associated with Mycosis fungoides, but whatever the nature of its much disputed cell infiltration may be, whether it is a lymphoma or granuloma, it bears a greater resemblance to a syphilitic granuloma than to Mycosis fungoides.

In the two cases reported as Mycosis fungoides by Pye-Smith and Swinford Edwards respectively, we have two well-marked instances of a disease in which the independent microscopic examinations proved the existence of cells indistinguishable from those of a round-celled sarcoma, although, in the former case, some part of the adrenal tumour resembled a lymphoma.

Again the characters of a lympho-sarcoma are not sufficiently constant to explain its pathology. So far, then, I venture to think there is no satisfactory evidence to prove a relationship between

Mycosis fungoides and the dermatoses of Hodgkin's disease and leukæmia.

Question 2.—Is Mycosis fungoides the ultimate member of a progressive group of dermatoses which include Pityriasis rosea and the parapsoriases?

I doubt very much (unless subsequent speakers can adduce histological evidence to the contrary), whether there exists any reliable data upon which to base an affirmative opinion. The cases I have seen and the reports I have read certainly indicate a negative answer.

Question 3.—Is Mycosis fungoides a disease *sui generis?*

It is fairly certain that the prodromal eruptions constitute part of the disease proper, and are not merely manifestations of the simpler disorders which they simulate and for which they are so frequently mistaken. I agree that however much the lesions may resemble each other, syphilis does not appear of any etiological significance in the production of Mycosis fungoides. It is a reliable statement to make that syphilis does not modify the general order of skin diseases, but produces characteristic lesions of its own.

Payne recorded a case having clinical appearances of Mycosis fungoides, while the tumours had a spindle-celled sarcoma character.

The hypothesis that Mycosis fungoides belongs to the class sarcomata does not account for the spontaneous diminution or disappearance of the new growths which so frequently occurs in the course of the disease and moreover the bulk of evidence which exists at present points to a marked histological distinction between the two. Payne, who had exceptional opportunity for clinical and pathological study, also concluded that it is best to regard the growth provisionally as a chronic inflammatory neoplasm or granuloma dependent upon some local irritant as yet undiscovered. The careful and detailed investigations of the morbid structure of the disease in the three reported cases carried out by Galloway and MacLeod in 1900 led them to the conclusion that Mycosis fungoides should be placed in the class of infective granulomata.

Eyre in his exhaustive bacteriological examination of these cases (included in the report), stated that the bacillus of Friedländer had not proved connection with Mycosis fungoides and also that he had failed to observe a bacillus similar to that previously described by McVail, Murray, and Atkinson of Glasgow. I do not think that at present we can safely go beyond these conclusions. But as the disease is neither contagious nor hereditary, it is more than possible that future investigation will prove it to be due to the presence of a micro-organism directly or through the influence of toxins.

Riecke and Radcliffe-Crocker's cases of Mycosis fungoides developing subsequent to injury must be borne in mind, but it is remarkable that in the whole series of cases recorded the possibility of trauma acting as a determining cause is only suggested in two. Most probably the relation was merely coincidental. The sum total of the evidence that exists at present certainly points to the conclusion that Mycosis fungoides is a disease *sui generis*.

Question 4.—Can a diagnosis be made in the early stage :

(*a*) On clinical grounds ?

(*b*) By the histology ?

Concerning the subject of sero-diagnosis, I have no experience. In the case of the male patient, aged 30 years, which I reported in 1902, the "herald" patch occurred on the forearm, followed, within twelve months, by symmetrical lesions of similar character on the front and back of the chest. The advance of knowledge and clinical experience since the early days of the Dermatological Society of London, to which Dr. Sequeira has referred, have been so considerable that now, on clinical grounds, a diagnosis can almost generally be made.

The continued investigations of the skilled pathologists in this country, apart from the valuable work being carried out in America and on the Continent, will surely hasten the time when, on histological grounds, an early diagnosis will be made, not merely possible, but certain.

Question 5.—What is the cause of death in fatal cases? Death has been brought about by septicæmia and exhaustion, with or without intercurrent diarrhœa, in the three cases I have been able to follow to the end.

Question 6.—Can anyone bring forward evidence that X-ray treatment is curative ? The value of the X-ray treatment has proved to be great, as Dr. Sequeira says, both for the relief of symptoms and the possible prolongation of life. But, although its beneficial influence in Mycosis fungoides exceeds that of any therapeutic measure of which I have knowledge, I have never seen a case in which its adoption has led to complete recovery.

Dr. P. S. ABRAHAM expressed his regret that he had little or nothing to add to our knowledge on this interesting disease, which he still preferred to call "*granuloma* fungoides," following the example of many authorities in America and elsewhere. He wished to associate himself with the compliment which had been paid to Dr. Sequeira, because his introduction was certainly most comprehensive and able, and all dermatologists would feel indebted to him for it. Some eight or ten cases of the condition had been under his care, and all but one of them were males. From that experience he would say that it was a disease pre-eminently of the male sex. Dr. Colcott Fox, however, considered that the sexes were about equally affected. He would not attempt to answer all the questions which Dr. Sequeira enumerated, for the very good reason that he could not. But in three cases which he saw in a quite early stage, he was able to make the diagnosis for the following reasons: the extreme pruritus and the great difficulty of influencing the patches of eczema which appeared, for even if the early lesions of granuloma fungoides disappeared under treatment, they very soon came back again. An early condition was shown in the photograph he handed round. Tumours developed later, and ultimately the patient went to University College Hospital, where he died. When he showed the case in its pre-fungating stage before the Dermatological Society of Great Britain and Ireland, great doubt was expressed by members as to its being granuloma fungoides. In at least one case he was in a difficulty as to whether the condition was Mycosis fungoides or syphilis. In one instance, at the West London Hospital, an old soldier came with an extraordinary dark brown swollen mass about the shoulder. It was thought to be syphilis, and was treated accordingly; but mercury, iodide, and salvarsan made it worse. It was therefore concluded to be Mycosis fungoides, and he showed the case as such before the West London Medico-Chirurgical Society. In another undoubted case of mycosis, the man said the first lesion he discovered was a wart on the penis, but there was no evidence that it was a syphilitic sore. He had sectioned cases of Granuloma fungoides, both at Blackfriars Hospital and at the West London Hospital, but he could not find anything definite except a granulomatous growth. If he had time and opportunity he would now be inclined to search for a protozoon or a low form of animal organism, in which direction he thought there was a hopeful field for pathologists.

Some of his cases had received much benefit from the application of X-rays. One bad case was kept alive four years by this means by the late Dr. Harrison Lowe. When the patient first came under notice he had numerous fungating tumours on the face and head and elsewhere.

Dr. WHITFIELD said that he would like first to comment on some of the contributions of previous speakers and then refer to the questions put by Dr. Sequeira.

In the beginning he would offer a caution with regard to the cytology of Mycosis fungoides. Mr. McDonagh at the previous meeting had gone at length into the microscopical appearances of the cellular infiltration of Mycosis fungoides, and had shown some very beautiful drawings made from histological specimens. He had not, however, stated from what period of the disease the tissue had come. Mr. McDonagh had drawn their attention to lymphocytes situated within endothelial cells and also to certain round pieces of chromatin, and had explained these as lymphocytes developing in the endothelial cells and free developing lymphocytes. Dr. Whitfield thought that in reality these were phagocytosed lymphocytes within the endothelial cells and chromatin fragments outside, and he was confirmed in this belief by the fact that the draughtsman had drawn in one or two of the specimens, appearances strongly suggestive of partially digested lymphocytes.

Dr. Whitfield said that he thought the histology of Mycosis fungoides could be divided into four stages, namely the stage of invasion, the stage of growth, the stage of cytolysis, and the stage of sepsis. Of course these stages were not always sharply defined one from the other, but that he thought that there was a practical use in the sub-division. The great fragility of the infiltration to which Dr. Galloway had referred and which was first described by Unna was found in the third stage.

Next he would like to refer to the ingenious suggestion by Dr. Galloway that there was a similarity between Mycosis fungoides, leukæmia, and lymphadenoma in that each of these diseases showed a prodromal eruption and a tumour stage. Dr. Whitfield would suggest however that this similarity was really only a superficial one, and would draw attention to the fact that in leukæmia and lymphadenoma the prodromal and tumour eruptions were fundamentally different histologically, and that the tumour eruption was not apparently a development of the prodromal eruption, whereas in his opinion, and he thought he should carry the balance of dermatological opinion with him, the tumours of Mycosis fungoides were an actual overgrowth, that is an exaggeration of the pre-mycotic eruption.

These remarks included all he had to say on question one.

The second question he would answer definitely in the negative and the third in the affirmative.

The fourth question relating to the clinical diagnosis by either clinical or histological examination, he would answer as follows: although it might not be possible to diagnose every case in the early stage by histological examination alone, he thought it was certainly possible to do it by combined clinical and histological examination. Sir Malcolm Morris had confirmed him in this opinion by the case which he had narrated at the first meeting. A case which was such as to lead Sir Malcolm to hesitate between sarcomatosis and mycosis was histologically examined by him (Dr. Whitfield) and reported definitely, as Mycosis fungoides. After this histological diagnosis had been given the character of the case changed far enough to make the clinical diagnosis certainly Mycosis fungoides. The points that he relied on in the early case were the invasion of the interfasicular spaces by a fine oval-celled infiltration, and the reaching up of this infiltration into the papillary body. In the earliest cases he had seen the epithelial tissue was not involved. Of the cases that had come under his observation, some had not been under his observation up to the termination of the disease, but in those cases in which a fatal termination had occurred it had been from sepsis and exhaustion.

Lastly, in answer to question six, he would like to refer to one case which had been under his care. The patient was a man aged 63 years. He was brought by his doctor suffering from a pruriginous and rebellious eruption of six months' standing. When the patient was stripped the diagnosis of Mycosis fungoides was immediately suggested, the whole of the trunk was covered with oval, infiltrated, brownish-red patches of various sizes, but all showing a sharply-defined margin. There were also two well-marked similar patches on the temples, sites that he considered very favourite ones for Mycosis fungoides. The patches on the trunk had their long diameters in the lines of cleavage.

A biopsy was made, and the case was taken, at his suggestion, to Dr. Colcott Fox, who was also shown the section. Dr. Fox made a very confident diagnosis of Mycosis fungoides, and the patient was advised to submit himself to X-ray treatment.

This was done by means of the pastille dose, no area having more than two pastille doses, and by the end of the summer 1909 all symptoms except a certain amount of pigmentation had disappeared.

Dr. Whitfield heard from time to time that he was well, and heard for the last time on the afternoon of the first meeting for this discussion, when he rang up his doctor, who said that he had taken a new lease of life and was without any symptoms. It was, therefore, five years since he was apparently cured, and during this time he had had no further treatment since; no relapse or fresh extension had at any time taken place. He did not wish to claim this dogmatically as a cure, but it was something very like it, and he believed the patient would have no further trouble from this disease. He congratulated himself especially on the fact that the case had been seen by Dr. Colcott Fox, whose diagnostic ability was so well known as it went a long way towards making sure that this case was really one of the disease under discussion.

Dr. PERNET said that in his long association with the late Dr. Radcliffe-Crocker, he had had the opportunity of seeing and following up quite a number of Mycosis fungoides cases (comparatively speaking) both in hospital and in private. Moreover, he had had some cases of his own. Altogether he had notes of thirteen cases—eight males and five females—some of these cases had been seen by other men as well. Two of these were "à tumeurs d'emblée," one male and one female. Dr. Pernet had observed the foregoing in various stages. The youngest was aged 28 years. Moreover, he had studied the disease at the Saint Louis Hospital, Paris, and had seen a good many of the cases exhibited in London and at Congresses. In another case, a woman, under the late Dr. Sidney Ringer, the diagnosis lay between sarcoma and Mycosis fungoides (this was in 1899), but Radcliffe-Crocker ultimately expressed the opinion it was the latter.

Referring to the points that had been suggested for discussion, he considered:

(1) That Mycosis fungoides was not the same thing as leukæmia. He had never seen it associated with typical clinical Hodgkin's

disease. With Dr. Radcliffe-Crocker he had observed a case which was marked by recurrent attacks of lymphangitis leading to an elephantiasic form of thickening of the skin with tumour development for the final stage. (A male, 1897. See Radcliffe-Crocker, *Dis. of the Skin,* third edition, vol. ii, p. 882). This case, as far as the great general swelling of the head was concerned, was apparently like the one alluded to by Mr. Douglas Heath.

Dr. Pernet considered that Mycosis fungoides was a disease *sui generis,* and probably parasitic. The parasite was perhaps ultra-microscopical. It had taken a long time to discover the spirochæte of syphilis.

(2) Dr. Pernet, like other observers, had seen Mycosis fungoides develop as a result of long standing (so-called) pre-mycosic dermatoses commencing like an eczema (one was very anomalous, D. 120, a female, 1903. In this case there was evidence of old syphilis. It was a very unusual case, but eventually the Mycosis fungoides nature of the case was undoubted). He had also seen it begin like a psoriasis, a pityriasis rubra, a seborrhoic dermatitis, and like an anomalous Dermatitis herpetiformis (a male, J. 549, 1913), at the time Dr. Pernet first saw it. This last case had been seen by another man previously and diagnosed as an eczema. The "Homme rouge" he had also seen. There is one point in these so-called pre-mycosic conditions that had struck him in some instances, viz., the borders of affected areas were more or less concave, instead of being convex. It was the apparently normal skin that penetrated convexly into the pre-mycosic areas. Again, islets of what looked like quite healthy skin were at times surrounded by the affected parts. But, as to Mycosis fungoides being "an ultimate member of the progressive group of dermatoses which includes Pityriasis rosea and the Parapsoriases"—that was quite another story. Besnier and others had considered the early dermatoses manifestations were Mycosis fungoides from the beginning, which was quite on the cards. Dr. Pernet did not consider that Mycosis fungoides had any relation to syphilis, though he had seen it occur in one or more syphilitics.

(3) As to the diagnosis in the early stages, Dr. Pernet considered that this was sometimes possible on clinical grounds, if all the symptoms and factors, mode of development, reaction to treatment, and so forth, were taken into consideration. At any rate some

cases became suspect. It was a question of clinical instinct to some extent, and also of thinking of the possibility of Mycosis fungoides. The reaction to X-rays would be an additional point, with other facts. Dr. Pernet had in many of the cases found that there was longevity in the parents on one side, or more usually on both. This family history might mean something or it might not.

At an early stage of infiltration it is possible that the microscope might be of service in bringing additional proof.

(4) As to the actual cause of death in Mycosis fungoides, Dr. Pernet had found it was usually due to septicæmia or to exhaustion. In the cases he had been able to follow up the end came very suddenly. In one a "phlegmon ligneux" of Reclus occurred about the right side of the neck and right temple (case of L—, a male) and was streptococcal. Dr Pernet had made the post-mortem in that, case (1898). The necropsy did not reveal any trace of Mycosis fungoides metastases in the viscera, which he examined carefully from that point of view. In another case (case of W—, a male, post-mortem by Radcliffe-Crocker and Pernet), *nil* in viscera.

(5) The X-rays appear to exert a wonderful and specific action on the infiltrations and growths, though the latter might disappear spontaneously (as observed before X-rays came into use). In the early stages of the infiltrating process X-rays were alone to be relied upon to keep the disease in check. But unfortunately the X-rays in his experience were not curative, and it was of the utmost importance that the patient should be kept under observation and the X-raying repeated, but bearing in mind that in fungating cases repeated X-raying might do harm, as pointed out first by Dr. Charles White, of Boston.

Dr. Pernet, in the case of a woman (with Dr. Radcliffe-Crocker), had injected radium emanations subcutaneously repeatedly, but he could not see that it did any good, and the patient eventually died in the usual way. She presented many tumours. The injections did no harm at any rate. This woman, whilst under observation, suddenly went off her head (? toxic), and had to be looked after in an asylum, but she got over it, and again came under treatment.

In a recent case (a woman) of *mycosis fungoides à tumeurs d'emblée* (J. 253), Dr. Pernet had recommended Salvarsan, as the case was rapidly getting worse. But Dr. Pernet had come to the conclusion that the Salvarsan perhaps did more harm than good, and he would not be keen on repeating it (or Neo-Salvarsan), except in the last resort, and in small doses. In this case, too, the X-rays (after the Salvarsan had been injected) did not appear to have the usual good effects one expected from them (*Trans. Med. Congress of Medicine*, London, August, 1913). Iodide of potassium he considered was contra-indicated.

Dr. GRAHAM LITTLE said he considered that the simplification of the classification of what dermatologists would accept as Mycosis fungoides would be very desirable. The three types which had been generally recognised were: (1) The so-called Alibert-Bazin type; (2) The Mycosis fungoides "tumeurs d'emblée" type; (3) The (?) Leukodermia perniciosa of Kaposi. Probably the last of these would by general consent be now excluded from the list. His impression was that the second should also go out of the group. The "tumeurs d'emblée" type was different clinically and histologically. He thought it would simplify the consideration of the question, and be more in accordance with histological and clinical facts, to regard Mycosis fungoides as a disease *sui generis*, and as confined to the group which began with the so-called premycotic condition and went on with that slow relentless march which one saw in the universally accepted cases. The recognition of the "tumeurs d'emblée" group was largely due to Brocq, and Brocq himself now admitted that these cases were like sarcoma, and, indeed, indistinguishable from this disease. He (Dr. Little) had brought sections from six cases of Mycosis fungoides for exhibition at the meeting. Three of them were true Mycosis fungoides, presenting histological appearances entirely similar. The other three showed tumour formation, and the histology was different. In the first three cases there was marked acanthosis, and the characteristic cell infiltration of the papillary layer, with confinement of the disease largely to the superficial parts of the skin, a state of affairs warranting Pye-Smith's description of the disease as chiefly implicating the skin. To such a degree was it superficial that very much of the elastic tissue remained intact: this was an old observation which was confirmed by the sections now exhibited. The recognition of its being primarily and chiefly a skin lesion was very important, and it would help one to get rid of many misconceptions concerning the other diseases which Dr. Sequeira had included in his survey, such as leukæmia and pseudo-leukæmia. With regard to the latter, or Hodgkin's disease, Dr. Pye-Smith had made a very useful contribution to the differentiation.* In that contribution, based upon his large experience at Guy's Hospital, which was the birthplace of Hodgkin's disease, Dr. Pye-Smith had pointed out that Hodgkin's disease, or as it is oddly named, primary pseudo-leukæmia, is a definite clinical and pathological condition characterised by hypertrophy of the lymph-glands, with anæmia and hæmorrhages. Lymphatic or lympho-sarcomatous tumours in the chest form another clinical group of intrathoracic growths, but neither have any real resemblance to Alibert's disease, in which the lymph-glands are not enlarged, which has never been observed in children, and which affects the skin, and, with rare exceptions, the skin alone, a tissue never affected in true Hodgkin's disease.† With regard to leukæmia, it was really difficult to say what was included under that elastic title; blood experts, like Limbert for example, seemed to regard it as approximating more nearly to malignant growth conditions, and blood examination alone could not settle the matter. Whether the tumour stages of Mycosis fungoides were to be included in the true leukæmias, or should be approximated to sarcomatous tumours, must be decided by further histological investigation. The clinical difficulty in accepting the sarcoma identification was great, especially considering the remarkably different age-incidence of the diseases. Mycosis fungoides occurred chiefly in older or even elderly persons, whereas sarcoma was chiefly seen in young people. But Mycosis fungoides was not entirely confined to adults; for one of his sections came from a case at the Great Ormond Street Hospital for Children, that of a young boy with Mycosis fungoides, which clinically seemed to be definite, and the histological sections showed the typical early acanthotic and superficially infiltrated stage. As far as he had been able to glean from the literature, the blood examinations in Mycosis fungoides seemed to have been remarkably contradictory, and nothing had been established to confirm its approximation to the leukæmias. There did not seem, for example, to have been any marked or consistent leucocytosis. By these various methods of inclusion one was irresistibly led to the verdict that Mycosis fungoides was a disease *sui generis*. Whether the tumour formation of Mycosis fungoides must be regarded as the same process as was present in the early mycotic condition was a more difficult matter to answer. It was possible that the development of toxins in the pre-mycotic stage predisposed to the generation of tumours, in the same way as one saw in other diseases of the skin—for example, the association of xanthoma with diabetes, and the various conditions which had been called "precancerous," as leading to the evolution of carcinoma.

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* *Brit. Journ. Derm.*, viii, p. 363.

† *Brit. Journ. Derm.*, viii, p. 365.

Dr. F. PARKES WEBER: I wish to make some remarks regarding the clinical and pathological diagnosis of Mycosis fungoides from certain varieties of leukæmia, etc. One of the most striking pathological characteristics of all cases of leukæmia, whether there be local tumour-like formations (as in cases of chloroma or "chlorosarcomatosis," and in cases of the so-called "leukosarcomatosis" of Carl Sternberg) or not, is the tendency to a fairly uniform infiltration or "permeation" of all the lymphatic glands and many of the viscera with leukæmic cells, whether belonging to the lymphocyte series or the myelocyte series. This is especially obvious in the liver, where microscopic examination after death reveals a definite inter-lobular (inter-acinous) distribution of the permeating leukæmic cells. I would ask—Has a similar permeation of similar distribution in the liver ever been discovered at the necropsy on a case of undoubted Mycosis fungoides? I knew one instance of its having been found after death in a patient who had the coarse "leonine" fæces of the "pseudo-lepra" clinical variety of Mycosis fungoides, but that simply proves that the case in question was in reality a case of leukæmia. It was, in fact, the variety of leukæmia described by Kaposi as "Lymphodermia perniciosa," which Kaposi was right in separating from true cases of Mycosis fungoides. It was by others, not by Kaposi himself, that this Lymphodermia perniciosa was included as a pre-mycotic variety of Mycosis fungoides. Hodgkin's disease, or "Lymphogranulomatosis maligna," is so distinct clinically from Mycosis fungoides that the difficulty is to find any clinical points of resemblance at all between the two. Pathologically both seem to belong to the group of "infective granulomata"—like tuberculosis, syphilis, and leprosy do,—but in neither of them has the causative microbic agent been yet discovered. I do not think that "pseudoleukæmia" should be brought into the discussion, because if the term in question means anything at all nowadays, it ought to mean a condition in which the lesions exactly resemble the true leukæmic lesions, but in which they are not accompanied—that is to say, at the time of examination—by any characteristic blood-changes of leukæmia. Dr. Gordon Ward, in his remarks, I think, referred to "secondary" leukæmia, but surely a *leukæmia cannot be secondary*, that is to say, in the sense in which a leucocytosis is spoken of as secondary, though one may suggest that it is secondary to traumatism, syphilitic bone disease, or malaria, if in a given case one believes that the leukæmia has been "excited" by traumatism, etc.

Dr. MacCormac said he had recently had the opportunity of studying the histology of three cases of Mycosis fungoides. The appearances were, in his opinion, by no means of so definite a nature as to enable a firm diagnosis to be made from microscopic evidence alone. Perhaps the most characteristic feature consisted of the accumulation of cells of a rather indefinite type in the papillary and sub-papillary layers. Acanthosis was apparently not a constant feature in any stage of the disease so far as the sections examined went.

In one case well-marked giant cells as definite as those of tuberculosis were present, even in the preparations made from an erythematous (pre-mycotic) patch. In this particular patch the characteristic infiltration was quite definitely present.

Generally speaking, the appearances so well described by Unna were to be seen.

With regard to the relationship of this disease to a sarcoma, there was now definite evidence that it did not belong to this group. Sections stained by Beckton's method for Altmann granules (fixing in weak Formol-Muller, staining with analine acid, fuchsin and differentiating picric acid alcohol), demonstrated the presence of these granules in the cells. This test was an exceedingly important and accurate one, enabling a distinction to be made between the cells of sarcoma and certain carcinomata where the granules were absent.

In the treatment of the disease, its ready response to X-rays was very much against any relationship with syphilis, where X-rays usually aggravated the skin condition.

Dr. J. M. H. MacLeod said that he wished to confine his remarks chiefly to the question of the early diagnosis of Mycosis fungoides, and the assistance given by the histological architecture in making it. He considered that Mycosis fungoides was a disease *sui generis*, and capable of being distinguished, both clinically and histologically, from leukæmia and Hodgkin's disease. He agreed with Dr. Little that the type of case described by Kaposi, under the heading of "Lymphodermia perniciosa," was not Mycosis fungoides, but probably belonged to the ill-defined group of the leukæmias. With regard to the type in which *Tumeurs d'emblée* occur he thought it possible that such cases might belong to a different category from the ordinary cases with a pre-mycosic stage.

He considered that the most reasonable heading under which to place Mycosis fungoides in the present state of our knowledge was that of the "infective granulomata," and regarded it as an infective disease due to some unknown specific virus.

He had examined a large number of sections of Mycosis fungoides in the pre-mycosic, and also in the infiltrated and tumour stages, and considered that the type of cellular infiltration which occurred was constant throughout, except that in the later stages of the disease the cells tended to disintegrate and showed what Unna had described as crenation and fragmentation. The changes which occurred in the epidermis he regarded as secondary, but he believed that the type of cellular infiltration and its distribution were sufficiently characteristic to be of diagnostic value. He showed drawings of the microscopical appearances in the early and later stage of the disease and pointed out the different type of cells which are usually met with. These had been described in detail in the paper by Dr. Galloway and himself in the *British Journal of Dermatology*, 1900, vol. xii, p. 153.

He considered that the infiltration most nearly approached that which has been described under the somewhat indefinite title of a granuloma.

He regarded the histological architecture as sufficiently characteristic in a well-marked case to distinguish Mycosis fungoides even in the pre-mycosic stage, from simple inflammatory conditions, such as psoriasis, eczema, or pityriasis rosea, from other members of the so-called infective granuloma group, such as tuberculosis, syphilis, or leprosy, from leukæmia, Hodgkin's disease, and from neoplasms like sarcomata.

He considered that the same pathological process was operative throughout and that the tumours were simply the further development of the pre-mycosic cellular infiltration.

Dr. DORE said his short contribution to the debate would have reference to the effect of the X-rays on Mycosis fungoides. He had recently had two cases under his personal care : one of them in the pre-tumour stage—not the pre-mycosic stage—and another in a man in whom the disease was eventually fatal and who had tumours all over the body. In speaking of the characteristic Mycosis fungoides, Dr. Galloway used the word "dramatic," and to his, Dr. Dore's, mind there was nothing in the whole range of dermatological radio-therapeutics more dramatic than the effects of X-rays on the tumours of Mycosis fungoides. After even a ½-pastille dose inflammatory reaction came on on the third day, was at its height in a week, and at the end of a fortnight or three weeks the whole tumour might have completely disappeared. If only half the tumour were exposed to the rays it would be literally cut through, half of it being healed and the other half left as it was before. Under the influence of the rays these tumours literally liquefied and melted away, and what was a curious fact to him, they did not leave scars. Moreover, when the site of the tumours happened to be a hairy part, and the X-rays removed such tumour, the hair could be restored to the area. In speaking of the specific effect of the rays on Mycosis fungoides one must not forget—to use another expression of Dr. Galloway's—the extreme fragility of the granuloma. Before the advent of X-rays the tendency of the tumours to heal spontaneously had been noted, and they tended to slough away. In reference to that point he would draw attention to the fact that the early lesions of Mycosis fungoides were less affected by the X-rays than were the later ones, and that he considered was due to the tendency of the tumours to degenerate and break down. His third point was the apparent failure of the X-rays to affect the real cause of the disease. One continued to treat a case of the condition, yet in spite of the disappearance of the tumours and the absence of relapse at the same sites, fresh patches kept coming out. It was a parallel case to treating a case of lepra, for while one could do much for the local lesions, the actual cause of the disease seemed uninfluenced. He was interested to hear of Dr. Whitfield's case, but his own opinion of the effect of X-rays on Mycosis fungoides was a somewhat pessimistic one. In the two cases he had referred to, the extremities were not affected, and he would like to know from Dr. Sequeira whether it was common for the hands and feet to be involved in Mycosis fungoides.

Dr. Travers Smith said his experience of the disease under discussion was almost *nil*, but he was associated with the case of a young lady, aged 26 years, who had Mycosis fungoides *d'emblée*, and lived about three years after the commencement of the disease. She was under the care of Dr. Colcott Fox. She, like the other cases which were spoken of, was benefited by the application of X-rays, and her skin was very bronzed, a point which had not been alluded to in this debate. Osler, in his description of Hodgkin's disease, described several cases in which this bronzing was very marked.

The President said it had been his exceptional experience to meet with eighteen cases of undoubted Mycosis fungoides—eight in hospital and ten in private practice. He exhibited a water-colour drawing of the first case he had seen, in 1878, the previous diagnosis of which had been "eczema psoriasis." In only one case was there any history of traumatism as a determining cause, that being the man referred to by Dr. Kenneth Wills and reported in a recent number of the *Proceedings*, photographs of which before and after treatment by X-rays he passed round. Appended is a brief tabular statement of the main points of his eighteen cases.

The following points seemed worthy of attention: The incidence was identical in the two *sexes*; in only one case was there any evidence of antecedent syphilis, and in him, as well as in all the other cases coming under observation since the introduction of the Wassermann test, it was consistently negative. As to *nationality*, four of his five private male cases were English (one of whom lived in Russia and another had long been in Canada), the other being Welsh; and of his five female cases, two were English (one a Jewess), two were Scottish, and one Swiss. Of his eight hospital cases, three males were English and one Welsh, while three females were English (one a Jewess) and one Irish.

Age-incidence.—In a Swiss lady the disease apparently began about the age of fifteen, and in one English (Jewish) patient at seventeen. In the remaining sixteen cases it started at about forty-five years of age on the average.

Mode of onset.—As far as can be gathered from the statements of patients or the reports of their medical men, or my own personal observations, this appears to have been as follows:

PRIVATE CASES.

No.		Name.	Age.	Sex.	Nationality.	Age of onset.	Course of disease.	Remarks.
1	Vol. iii, 1893	C. M. S –	23	M	English, had lived in Canada	22	Shown before the Dermatological Society of London in January, 1902, and fully reported by Dr. Stowers; the changes in the nine years since first seen were surprisingly slight	*Primary lesions:* Began as a red patch in bend of right elbow; when seen there were extensive and well defined erythematous and scaly patches like parapsoriasis over shoulders, loins, abdomen, buttocks, thighs, and legs, with much pigmentation; had been diagnosed as urticaria, psoriasis, and leprosy; itching not specially marked.
2	Vol. v, 1895	J. S—	47	M.	Yorkshireman, living in Russia	44	Last seen in 1897; condition had become much worse, and tumours appeared on trunk and face	*Primary lesions:* Numerous extensive patches of erythema and lichenification over back, trunk, limbs, and face; a heavy drinker; intense itching, terribly aggravated by treatment with chrysarobin in Germany.
3	Vol. viii, 1897	V. M—	19	F.	English (Jewess)	17	Subsequent course rapid, and reported to have died of typical mycosis under Dr. Colcott Fox	*Primary lesions:* Large areas of lichenification, over which bullæ formed, on right thigh; spread rapidly to buttocks, thighs, arms, and back, with pigmentation; itching extreme; face unaffected.
4	Vol. xiii, 1899	L. P—	64	M.	Yorkshireman	Eight months previous to being seen	Extremely rapid; died under distinguished surgeon about a year afterwards; seen only once and diagnosis was missed, but numerous multiform tumours appeared and ulcerated	*Primary lesions:* Very severe urticarial and papulo-vesicular eruption all over trunk and limbs, suggestive of keratitis herpetiformis; itching intense, with extreme mental agitation.
5	Vol. xix, 1903	W. C—	46	M.	Welsh	44	Improved greatly under sixteen X-ray exposures; not seen since end of 1903	*Mycosis d'emblée:* Tumours affecting face, scalp, neck, and upper part of trunk; sent with suggested diagnosis of blastomycosis.
6	Vol. xxi, 1904	Miss G—	55	F.	Scotch	53	Early lesions did well with X-rays; subsequent progress unknown	*Primary lesions:* Began as "nettle rash" with goose-flesh and patches of vesicles; then had circinate lesions on face and chest (diagnosed as erythema-urticaria); when first seen had severe lichenification, infiltration, with a few tumours on legs and thighs; itching intense.

PRIVATE CASES—*continued.*

No.		Name.	Age.	Sex.	Nationality.	Age of onset.	Course of disease.	Remarks.
7	Vol. xxvii, 1907	Madame P—	39	F.	Swiss	15 or 16	General health still apparently good	*Primary lesions:* Extensive lichenification on trunk, arms, and legs; *nil* on face; no lymphatic involvement *nil* on face; been treated for many years in various countries with X-rays, and presents deep scars from them all over trunk and limbs; been under many distinguished dermatologists.
8	Vol. xxv, 1907	W. E—	52	M.	English	50	Seen only once, but reported to have died in 1910	*Primary lesions* diagnosed as psoriasis; presented very large ulcerating psoriasiform patches over trunk, limbs, scrotum, and neck; *nil* on face; itching intense; had been treated in various cliniques in Germany; no X-rays; greatly aggravated by intensive chrysarobin treatment.
9	Vol. xxx, p. 48, 1910	Mrs. B—	51	F.	,,	46 to 47	Improved greatly under eighteen injections of orsudan from November, 1910, to end of April, 1911; now under Dr. Sequeira, and reported to have greatly improved under X-ray treatment	*Primary lesions:* A practically universal dermatitis, with copious desquamation and extensive areas of lichenification with deep pigmentation; eyelashes and eyebrows fell early in the disease; skin of face was deeply pigmented and atrophic, causing ectropion and immobile lips; itching extreme.
10	Vol. xxxvi, 1913	Mrs. Y—	41	F.	Scotch	35	Seen only once; *in statu quo*	*Primary lesions:* Large erythematous patches and tumours on trunk; face unaffected; no lymphatic involvement.

HOSPITAL CASES.

No.		Name.	Age.	Sex.	Nationality.	Age of onset.	Course of disease.	Remarks.
1	1887	H. W—*	45	M.	English (Devonshire)	For several years supposed to have psoriasis, then "eczema-psoriasis"	Lesions disappeared under massive doses of arsenic intramuscularly, but recurred six months afterwards, when he resumed drinking habits; died of double pneumonia in 1891, in course of which lesions again completely subsided	*Primary lesions:* Has been diagnosed as "eczema-psoriasis"; an extremely heavy drinker; lesions immensely hypertrophic; scaly patches over limbs and trunk, scalp and forehead, with much pigmentation.

HOSPITAL CASES—*continued.*

No		Name.	Age.	Sex.	Nationality.	Age of onset.	Course of disease.	Remarks.
2	1899	F. Y—†	43	M.	English	40	Disease kept in abeyance by frequent exposure to X-rays and latterly by arc lamp	Previously had suffered from syphilis; *erythematous patches on trunk*, arms, and legs; originally had *tumours on face;* during last eight years has attended hospital thirty times per annum, having four or five pastille doses at each visit.
3	1908	Rebecca W—‡	71	F.	English (Jewess)	About menopause at 45	*Death;* bronchitis and exhaustion	*Primary lesions* diagnosed as ulcerative psoriasis and also as syphilis; tumours on arms, legs, and shoulder; face unaffected.
4	1912	H. P—	45	F.	English	Nine months previous to admission	*Death;* patient developed pleurisy with effusion, and died two months after admission to hospital	*Tumours d'emblée:* Tumours affecting trunk and legs; no lymphatic involvement; *prepared by Dr. Pernet.*
5	1913	J. M—	41	M.	,,	37	Considerable improvement under treatment with X-rays and salvarsan	*Primary lesions:* Patchy roughness of skin, which irritated considerably; presented enormous thick patches of erythrodermia and lesions in various stages of infiltration; tumours in groins and abdomen; previously diagnosed as syphilis and Lichen hypertrophicus; face and upper part of trunk unaffected, but much lymphatic involvement; *no definite blood changes.*
6	1913	S. L—	40	F.	,,	39	Improved very much under treatment with X-rays and arc lamp	*Primary lesions: Erythrodermia,* pruritus severe; lymphatic glands early and markedly involved, especially cervical, axillary, and inguinal; small nodules on face, arms, trunk, and legs; no definite blood changes.
7	1914	K. A'H—	35	F.	Irish	33	Greatly improved under X-rays; still under observation	*Primary lesions* resembled Lichen spinulosus; intensely itchy; over whole of trunk and face and in scalp.
8	1914	M. B—	48	M.	Welsh	45	Tumours rapidly subsided under X-rays (photographs)	*Tumours d'emblée:* Tumours affecting face, scalp, arm, groin; attributed to blow with barnacled spar; no enlarged glands.

* Water-colour drawing.

† Four photographs, taken in 1901.

‡ Three photographs.

Fig. 1.

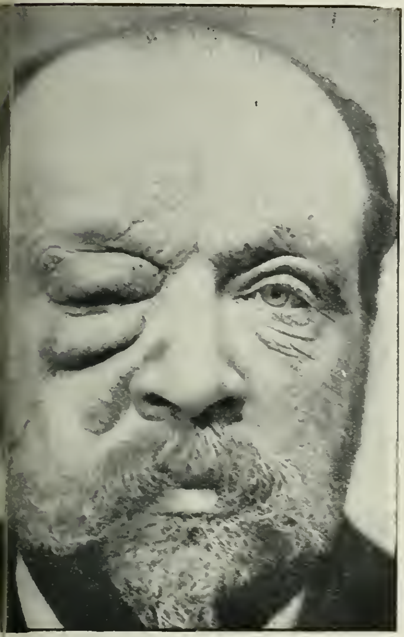


Fig. 2.

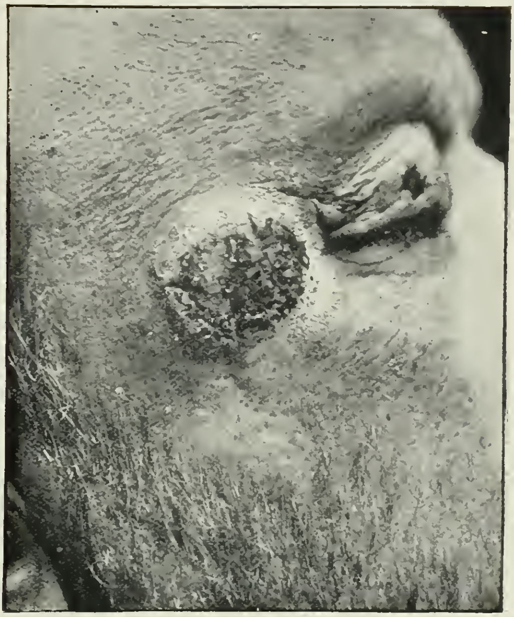
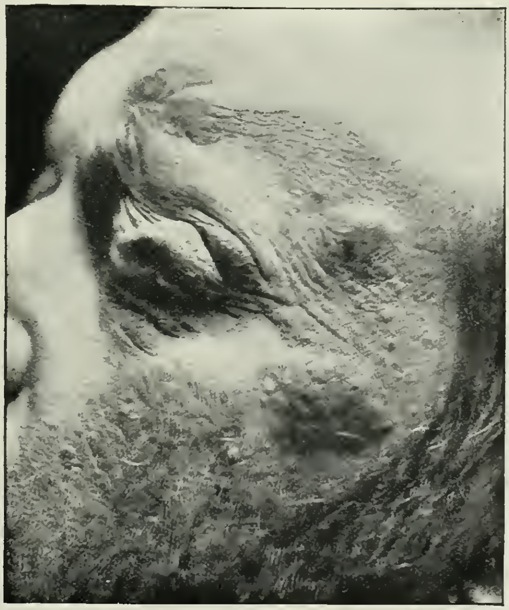


Fig. 3.



Hospital case No 2.—Mycosis fungoides, with tumours appearing early on the face. Englishman, aged 58 years. Age of onset 40. Photographs taken in 1899.

	Males.	Females.	Total.
Mycosis à tumeurs d'emblée	2	1	3
Lesions like psoriasis	2	1	3
Lesions like parapsoriasis	1	1	2
Urticarial lesions with vesicles	1	1	2
Extensive lesions like lichen or lichenification.	2	1	3
Patchy erythema with early tumours.	1	1	2
Lesions like lichen spinulosus	—	1	1
General erythrodermia like lymphatic enlargements.	—	1	1
An indeterminate dermatitis	—	1	1
			18

He formulated his answers to Dr. Sequeira's points for discussion as follows :

(1) Careful examination of the blood in all his recent cases had failed to reveal any constant or characteristic abnormality, although in three cases there had been a persistent moderate degree of leucocytosis which could not be accounted for by the presence of any suppuration. Even in those cases in which there had been marked enlargement of lymphatic glands and spleen, probably conforming to the Kaposi type of "lymphodermia perniciosa," the diagnosis from leukæmia had been a matter of facility. In the few cases of true leukæmic prurigo which had come under his observation the skin lesions, which were deep-seated nodules in the hypoderm, did not very closely resemble or correspond with any of the early recognised lesions of mycosis fungoides.

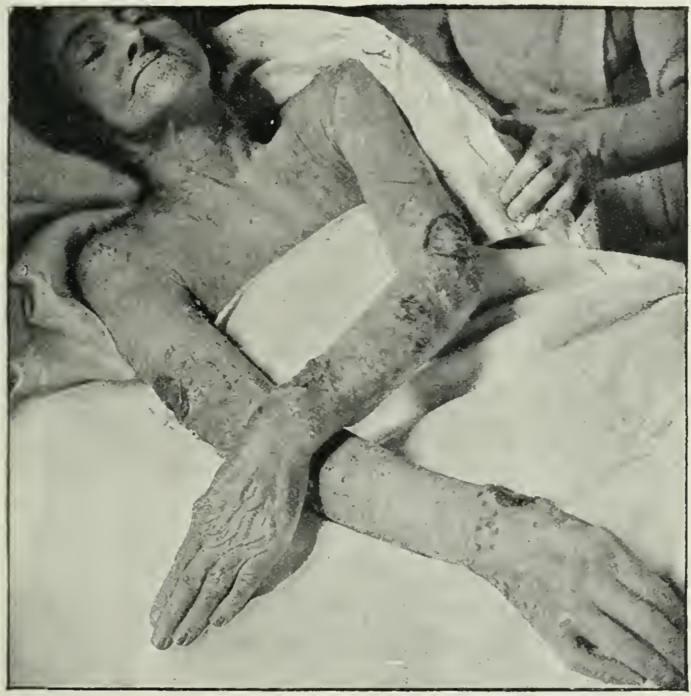
(2) He could not but think that an experienced and skilled clinical observer could always differentiate with ease the early so-called premycotic lesions of the disease under discussion from the much more superficial epidermic lesions of "parapsoriasis," or "Pityriasis rosea." Indeed, he considered Brocq's diagrammatic figures of "Faits de passages" as merely interesting figments of the brilliant author's mind, and not practical, solid results of or aids to accurate pathology or clinical observation.

(3) Severity of itching he regarded as certainly a valuable aid to

diagnosis in the early stages, as it is often out of all proportion to visible skin changes. Its presence was, however, certainly not constant. He was inclined to place great importance, as an aid to early diagnosis, upon the point that the early eruptions do not exactly correspond to any well-recognised types of skin disease. They are "indeterminate," "eczematoid," "lichenoid," "psoriasiform," "erythrodermial," etc. One type of lesion, however, to which Dr. Whitfield had referred, had always struck him as very suspicious, if not actually pathognomonic. It consisted of raised, pad-like, infiltrated, erythematous, persistent patches, sometimes completely circular, but generally crescentic or discoid; an example of the condition was seen in a patient exhibited by Dr. Dore at the previous meeting, for diagnosis. He had difficulty in believing that the diagnosis in the earliest stages of a disease so multiform in its primary lesions could be firmly established by microscopical examination, although doubtless that was a consummation devoutly to be wished for. There was little room for doubt that Mycosis fungoides was a clinical entity, but further investigation was clearly necessary to decide whether it was a disease *sui generis*, or one of a series of lymphatic affections as adumbrated by Mr. McDonagh in his extremely valuable and suggestive contribution to the debate, but our present knowledge seems to be against this view, and to point to a definite specific micro-organism as its *materies morbi*. The cause of death in three of his own cases had been bronchitis, with general marasmus, empyema, and double pneumonia in an alcoholic. He could not accept as examples of true Mycosis fungoides cases reported to have presented metastatic growths after death, although they might be considered as examples of other types of the "lymphatic series."

Members were in general accord as to the value of X-rays in treatment and the futility of all other remedies, including salvarsan. He had never seen the occurrence of the aplastic condition, referred to by Dr. Galloway, resulting from the prolonged administration of the rays. The case referred to by Dr. Whitfield impelled him to mention a case which he had seen once in a hospital in July, 1913. The patient was a man, aged about 60 years, who presented numerous tumours over the trunk which he diagnosed as mycotic, but without making accurate notes of the condition. The man had attended the Electrical Department on several occasions, receiving in all twenty-four full pastille doses of X-rays. He had hunted him up in North London in order to show him at the previous meeting, but all traces of tumours had disappeared and the man was quite well! The case did *not* figure in his tables.

FIG. 4.



Hospital case No. 3.—Early lesions like psoriasis. Woman, aged 71 years. Age of onset about 45.

In conclusion, he would like to add a few words in his Presidential capacity. He thought he was now entitled to congratulate the Section on the debate which had been inaugurated by Dr. Sequeira's paper. It had been on a high scientific plane, and he expressed his conviction that it would be regarded as a classic for general reference on its subject.

Dr. SEQUEIRA, in reply, said he felt that at such a late hour it was his duty to be brief; therefore he would touch on only a few points.

He had been delighted to hear the points which the debate had given rise to, and from them, he believed, much had been learned. He personally looked upon Mycosis fungoides as a disease *sui generis.* He agreed with those who said that clinically the dermatoses of Hodgkin's disease and leukæmia were not like the early conditions met with in Mycosis fungoides. Members had heard much of aleukæmic leukæmia at the end of leucocythæmia, but that type of condition was not likely to be mistaken for Mycosis fungoides and the remarks made upon that were, he thought, submitted on purely hæmatological grounds, not on clinical. It was interesting for him to hear the statement made that it was possible by X-raying to hasten the end of patients suffering from Mycosis fungoides by the effect on the blood. He had already referred to White's case in which there was septicæmia due to breaking up of mycotic tumours. But, before the X-rays were introduced, people died from these septic conditions and at an earlier stage than now. The rays increased the erythrocytes in all extensive dermatoses which were X-rayed. It was a common observation, and he had seen it himself in more than one case of Mycosis fungoides. He agreed with those who said there was nothing in the blood picture upon which a diagnosis of Mycosis fungoides could be made. Where there was a large leucocytosis the case was probably one of another disease.

As Dr. MacLeod said, the crux of the debate was the question whether one could, in the present state of knowledge, make a diagnosis of early Mycosis fungoides on clinical and histological grounds. The speaker agreed with Dr. Whitfield when he said a combination of the two methods was the correct course. He thought that in many cases the diagnosis could be arrived at on clinical grounds alone. The lack of exact conformity to any common dermatoses put the wary man on his guard. In some cases there could only be a strong suspicion in favour of the condition being Mycosis fungoides, and the expert histologist could afford valuable help in these, though some of the experts did not seem prepared with criteria on which the clinician could rely. The whole process, from beginning to end, he regarded as one, and with that view histologists agreed, that there was a progressive infiltration of the same type, and that such conditions as fragmentation were epi-phenomena, not connected with the original process.

Dr. Dore asked as to the involvement of the extremities. He had not paid special attention to that point, but in one case which the President and he had now under observation the extremities were definitely affected; it was of the erythrodermic type. He could not say much concerning bronzing of the skin in the disease, but in patients who had long suffered from the disease there was an alteration in the colour of the skin, and he regarded that as due to diapedesis, aided perhaps by the large doses of arsenic which many of these patients took as well as the X-ray treatment. Dr. MacCormac's operations on the Altmann granules in sarcomatosis and Mycosis fungoides would be an additional point in the differential diagnosis. In connection with Dr. Whitfield's case of cure by X-rays Dr. Sequeira mentioned the case of a railway guard, whom he showed in 1910, with large mushroom-shaped tumours on his back. He was X-rayed and the tumours disappeared, and for the last four years he had remained absolutely free. It was one case out of thirteen, and he was prepared to admit it might not be of the ordinary form.

He was grateful for the way in which his efforts had been received, and for the kindly remarks which had been made.

CLINICAL NOTE.

A CASE OF RECURRENT SYPHILITIC INFECTION SHOWING SOME FEATURES OF SPECIAL INTEREST.

By G. T. WESTERN, M.A., M.D.

The patient, a man, aged 25 years, developed a hard chancre on his penis early in November, 1913. Slight sore throat is said to have followed and was treated with mercury.

On coming under observation on January 25th, 1914, the scar on the penis was visible and the Wassermann reaction was completely positive. Neo-salvarsan ·9 grm. was given intravenously on January 28th, and repeated on February 2nd and 9th.

On April 7th, the Wassermann reaction was completely negative.

On April 5th, the patient had connection for the first time since January.

On April 12th (seven days after exposure to infection), he noticed a small sore on the penis. By April 16th, this had increased to $\frac{3}{8}$ in. in diameter and formed a clean ulcer with a firm base. On examination by dark ground illumination considerable numbers of Spirochætæ pallidæ were demonstrated. The Wassermann reaction at this date still remained negative.

This ulcer was situated at a different site to the old primary sore the scar of which was still visible.

Neo-salvarsan ·9 grm. intravenously was given at once (April 16th) and repeated on April 23rd and May 6th.

On April 23rd the Wassermann reaction had become positive and still remained so on May 6th, but on May 19th it was again negative. The ulcer on the penis healed slowly and had quite disappeared by May 19th.

On June 30th the Wassermann reaction was still negative.

It might be suggested that the second ulcer was a secondary or tertiary manifestation. If this were so Spirochætæ would not have been so abundant and the Wassermann reaction on April 7th and 16th would not have been negative.

The points of particular interest in this case appear to be:

(1) The disappearance of the Wassermann reaction in ten weeks after commencing treatment with neo-salvarsan.

(2) The possibility of becoming reinfected after successful treatment.

(3) The short incubation period (seven days) and the unusually rapid development of the primary sore when it is a reinfection. This would appear to be due to the fact that the tissues of such a person are in a condition of hypersensibility to the spirochæte owing to the stimulus of the previous infection.

(4) The interval after the appearance of the sore before the appearance of a positive Wassermann reaction (eleven days).

(5) The short period during which the Wassermann reaction remained positive (less than twenty-six days).

CURRENT LITERATURE.

HISTOLOGY OF GRANULOMA ANNULARE. Krausner. (*Archiv. f. Derm. u. Syph.*, May, 1914, cxx, 1.)

This short contribution to the histology of Granuloma annulare (Radcliffe Crocker) confirms in the main the findings of Graham Little in this country and Arndt in Germany. The author describes small aggregations of epitheliod cells in the middle and lower layers of the cutis. In the periphery of these a few mononuclear lymphocytes with a deficiency of protoplasm and a few mast-cells, but an entire absence of giant and plasma-cells. There was also to be seen a marked degenerative tendency of the collagen bundles in the immediate neighbourhood of these aggregatious of cells, and the connective-tissue nuclei and elastic fibres showed a similar necrotic staining reaction to Van Giesn. Stained by Unna-Tänzer stain a similar degeneration of fibrous and elastic tissue was noted, but the epidermis itself showed no abnormalities whatever, and whilst there was a considerable amount of perivascular infiltration with mononuclear round-cells, there did not appear to be any endothelial change of note. The histological appearances of Granuloma annulare are in this author's opinion so characteristic for the condition that a diagnosis of it can be made on microscopic evidence alone.

A very beautiful chromotype reproduction of the clinical appearances of a case and two excellent micro-photographs accompany this contribution.

H. C. S.

LEUKÆMIA OF THE SKIN. BERNHARDT. (*Archiv. f. Derm. u. Syph.*, May. 1914. cxx. 1).

THERE is nothing strikingly novel in the author's conclusions, but they are well summarised, and agree in the main with the generally accepted views in this interesting domain. In view of a recent discussion on Mycosis fungoides held by the Dermatological Section of the British Royal Society of Medicine, it is important to note that Bernhardt agrees with all the speakers in that debate, in his statement that Mycosis is a disease *sui generis*, and must not be classified with the leukæmias. True leukæmic cutaneous manifestations may be papillomatous, and so closely crowded on a given area that they lend it the appearance of shagreen leather. Some of these minute elevations may assume a more obvious papillomatous character, and may take their origin from an erythematous base. Other clinical types of leukæmic involvement of the skin belong to the erythrodermias, some of them very difficult or impossible to distinguish from Pityriasis rubra of Hebra, without a blood examination, and others with a very close resemblance to Psoriasis, which has earned them the name of erythrodermia leukæmica psoriasiformis.

H. C. S.

NOTICE.

THE fourteenth tour of Medical Studies to the Mineral Water Spas and Maritime and Climatical Stations of France, organised by Dr. Carron de la Carrière, will take place from August 31st to September 13th, 1914, under the direction of Prof. Landouzy. It comprises the stations of the Vosges, the north and west of France. The town of Nancy is taken as the meeting point of all the members. For the journey to Nancy (Station of the Compagnie de l'Est) all the Railway Companies will grant a reduction of fare.

From Nancy to Enghien-les-Bains, the following places will be visited:

Gérardmer, La Schlucht, Bussang, Plombières, Bains-les-Bains, Luxeuil, Bourbonne, Martigny, Contrexeville, Vittel, Mondorf, Saint-Amand, Zuydcoote, Berck, Forges-les-Eaux, Bagnoles-de-l'Orne, Enghien-les-Bains.

Inclusive fare, from Nancy on August 31st to Enghien-les-Bains on September 13th, will be 300 francs each person.

Those desiring to accompany the tour should communicate with Dr. Carron de la Carrière, of 2, Rue Lincoln, Paris, indicating the station from which they will start.

Subscriptions should be sent to Dr. Jouaust, 4, Rue Frédéric-Bastiat, à Paris.

THE BRITISH
JOURNAL OF DERMATOLOGY.
AUGUST, 1914.

THE *RÔLE* PLAYED BY A LYMPHOCYTE IN INFLAMMATION AND ITS PROBABLE RELATIONSHIP TO SARCOMA.*

By J. E. R. McDONAGH, F.R.C.S.

Introduction.

The first consideration will be given to the life history of the lymphocyte, including its origin, and the cell to which it gives rise.

The biology and biochemistry of the plasma cell will be discussed, then the *rôle* which the lymphocytes and plasma cells play in acute, and chronic inflammation, and, finally, the probable relationship which exists between the latter and sarcoma will be dealt with.

Origin of Lymphocytes.

Lymphocytes have their origin in the granoplasm of endothelial cells (Figs. 1 and 2), and they are formed most abundantly in the spleen and in the lymphatic glands. They may also be formed in the bone marrow, and in any tissue where their presence is required.

It is owing to their capacity for being formed in the skin that a few observers have stated that the corium is studded with minute lymphatic gland elements, which, of course, is not the case strictly speaking.

It is generally held that lymphocytes are formed only in the lymphatic glands, spleen, and bone marrow, and that if they are required at a certain spot, in the skin for instance, that a message is conveyed to the nearest glands to elaborate lymphocytes which, when formed, travel the round of the systemic blood stream before arriving at the station from whence the call came.

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* This article is related to a similar one dealing with the *rôle* played by an epithelial cell in inflammation and its probable relationship to carcinoma, which is published in the *Archiv. f. Derm. u. Syph.*, Bd. cxx, H. i, S. 289.

What the nature of the message is, how it travels along the different lymphatics, and how the lymphocytes enter the circulation, are points which are not explained.

It would not be nearly so hypothetical to assume that lymphocytes are formed *in situ*, that the lymphatic vessels are capable of forming more if required, and that the lymphatic glands are of the nature of a base, wherein an almost inexhaustible supply can be produced. In order to see what really happened I removed chancres in all stages with a long strip of skin posterior to them, which is a simple matter when the sores are situated on the tip of a long foreskin. If the patient is circumcised, transverse sections may be obtained of the base, and an examination, therefore, will give the clue as to what is happening between the sore and the nearest chain of lymphatic glands.

So far as the lymphatic system is concerned, one finds a dilatation of the vessels with a proliferation of the endothelial cells, surrounded by a collection of mixed, small round cells (lymphocytes) and plasma cells. Here and there an enormous collection of cells is to be seen in the area covering the whole field of the microscope. In the centre instead of finding a gaping lymphatic vessel, a collection of endothelial cells is to be seen, some of which have become fused together to form a giant cell, while the protoplasm of others is in the process of giving rise to lymphocytes, as in Figs. 1 and 2. Outside this endothelial collection, are to be seen numerous large mononuclear leucocytes and plasma cells. Seeing such a field under the microscope, and being unaware what the tissue was, one would immediately say that it was a section from a lymphatic gland.

The endothelial proliferation is in some places so marked that the lymphatic vessel becomes obliterated; hence the nature of the lymphangitis or lymphatic cords that are so commonly to be felt running between the sore and the glands. In some cases, as serial sections show, the cellular infiltration is more marked in some areas than in others, hence the explanation of the nodular character that the lymphangitis or lymphatic chain of beads sometimes takes.

Fig. 1.

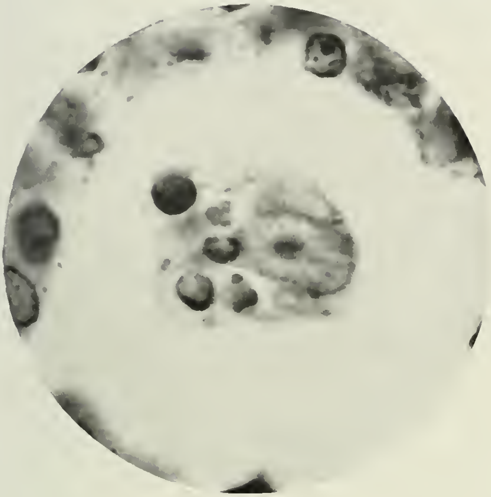


Fig. 2.

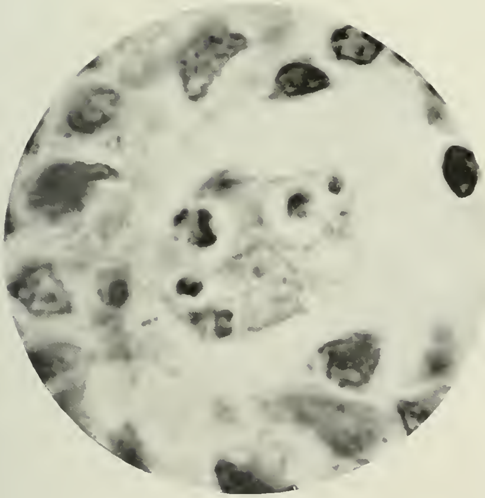


Fig. 3.

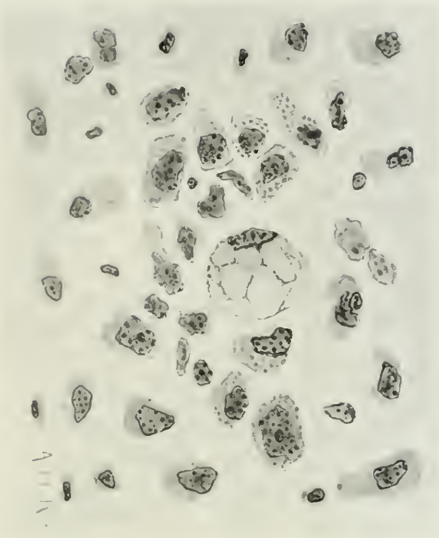
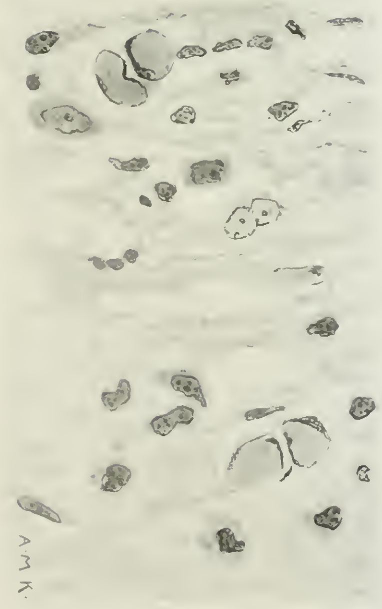


Fig. 4.



To Illustrate Mr. J. E. R. McDonagh's Article: The Rôle played by a Lymphocyte in Inflammation and its probable Relationship to Sarcoma.

From what has been mentioned, there is now proof that lymphocytes may be formed from the endothelial cells of the lymphatics. From repeated examinations, I cannot help coming to the conclusion, that the giant cells which are to be met with in chronic inflammation are nothing more or less than a fusion of endothelial cells which block the lymphatic, of the nature of an endolymphangitis, analogous to an endophlebitis or endarteritis. The fact of the nuclei collecting together at one pole of a giant cell, as they not infrequently do, does not argue against the correctness of the above theory, since endothelial proliferation may take place in one area, and not around the whole circumference of a vessel, as is again witnessed in veins and arteries.

In a chancre, local lymphangitis is well marked, and typical endothelial cells with embryo lymphocytes in their protoplasm are also to be seen, before the lymphatic vessels posterior to the sore show a similar change, so it follows that lymphocytes can be formed in the site of the infection.

In the lymphatic glands, lymphocytic formation is at its zenith, and at first sight it appears difficult to say whether the lymphocytes so formed are destined to remain therein to do their work "in loco," or whether they are sent out to the site of infection. On further examination it is clear that many, if not the majority, of the lymphocytes formed in a lymphatic gland, remain to act where they are formed, for the following reasons: In early secondary syphilis, there is a marked lymphocytosis, which is more pronounced in the severe than the light cases, and which is increased by treatment(12). The greatest enlargement of the lymphatic glands is not in the severe cases, and, moreover, there exists no ratio between the degree of lymphocytosis and the enlargement of the lymphatic glands. On the contrary, the greatest lymphocytosis is most marked in those cases in which the glands are only slightly enlarged. In Hodgkin's disease, the glandular enlargement may be enormous, but there is no lymphocytosis.

Staining Characters of Lymphocytes.

An endothelial cell containing embryo lymphocytes, when examined "in vivo" stained with borax methylene blue, appears to be full of numerous small round cells. When examined in fixed specimens

(Figs. 1 and 2), the cells in process of formation are found scattered about in the protoplasm, and frequently appear to be divided into groups by septa. The endothelial cell degenerates after the lymphocytes have left it.

The embryo lymphocytes stain deeply with hæmatoxylin and basic dyes, and in sections stained with Pappenheim's mixture of pyronin and methyl green, some stain a brilliant red, and some a brilliant green. Chemically, they consist of nucleoprotein and a lipoid-globulin adsorption compound. It is the prevalence of one substance over the other, which determines as to whether they will stain with the pyronin or the methyl green, the latter being practically specific for nuclein, and the former for lipoid-globulin.

The stained masses are distributed unevenly in the cell, but in nearly every case they practically cover the whole cell, hence the reason why a lymphocyte looks as if it is all nucleus.

It is not until the cells become adult, that the nucleo-protein becomes differentiated into chromatin threads and dots, then the lipoid-globulin becomes the colloidal membrane of the nucleolus—the vital part of the nucleus. When this is complete we have the small lymphocyte.

FUNCTION OF A LYMPHOCYTE.

Now what is the function of the small lymphocyte? One answer can be given with certainty, and that is, that it is *not* phagocytic; its function is doubtless a chemical one, of the nature of a ferment action, an action which is probably more marked in the cell it gives rise to than in its own self.

If sections are stained with rongalit white, nuclei stain blue, which proves that they contain free oxygen (1). If sections are treated with benzidine and hydrogen peroxide, the nuclei also stain blue, which proves the presence of a peroxydase. Therefore, nuclei contain free oxygen and a ferment for activating the same, and the action of the latter is doubtless accelerated by the iron, as in the case of the red blood corpuscles. The oxidising action of a lymphocyte may be used directly against the cause for which the cell is elaborated; or indirectly, by giving up the oxygen to the protoplasm of the cell to which it gives rise.

THE CELL WHICH DEVELOPS FROM LYMPHOCYTES.

This now brings me to describe the cell which develops from the small mononuclear leucocyte, viz., the plasma cell.

Plasma cell.—The general opinion prevails that a plasma cell originates from a lymphocyte, but there are still a few observers who hold the view that a connective tissue cell is its progenitor.

Connective tissue cells are in a way insignificant cells, as their function in inflammation is mainly mechanical; they act as a barrier, which is still further strengthened by multiple division of the parent cells into young connective tissue cells. Collagen and elastin result from the old connective tissue cells, and the disappearance of the former, with first clumping, and then disappearance of the latter, which is frequently referred to by skin histologists as being diagnostic of certain affections, is what always takes place when there are sufficient inflammatory cells present.

Connective-tissue cells, like other cells, degenerate; hence it might be expected that certain chemical entities are to be met with in the degenerated products. The name collagen is given to one form of degeneration of a connective-tissue cell, and it is a substance which is recognised by the affinity it has for acid stains such as acid fuchsin and water blue. This acidophilia is due to the presence of basic amino-acids, namely, arginine, lysine and histidine, as Unna (1) has ingeniously shown.

As stated in Part 1 (14), degenerations such as colloid, hyaline, etc., are true chemical substances, or in other words, analytic products of protein metabolism. In some degenerations, certain amino-acids are more active than in others, some amino-acids act as acids, others as bases, some have a strong reducing action, others have none; hence it is at once obvious why the different forms of degenerations have not got identical staining properties. Elastin is, doubtless, likewise a degeneration product of connective-tissue cells, and the way in which it differs from collagen is entirely dependent upon the predominating amino-acids. Elastin is basophilic, owing to the excess of glycocoll, leucine, alanine and phenylalanine over the other amino-acids (1); moreover, reducing amino-acids are found in elastin, namely, leucine and tyrosine, therefore it is clear why the staining properties of these two degeneration products should be so different.

Apart from acting mechanically, a connective-tissue cell can act chemically, and it does so by forming the tissue-mast cell. This is the only cell to which it gives rise.

By an increase in the size of the protoplasm of a lymphocyte, a plasma cell is formed; the protoplasm bulges in one diameter more than in another, so that the cell has a "cottage loaf" appearance, or in other words, the nucleus looks as if it was excentrically placed.

The nucleus of a plasma cell does not differ from that of a lymphocyte; it is divided up into chromatin masses and threads, in the centre of which a nucleolus is generally to be seen. It is in the protoplasm that the chief difference lies, for in fixed specimens a small lymphocyte appears to have no protoplasm, while a plasma cell has about three times as much as the nucleus, and it stains brilliantly with pyronin.

If the cells are examined *in vivo*, stained with borax methylene blue, the distinction is less evident, as the nucleus of the plasma cell is more centrally placed, and, if one depends upon the amount of protoplasm surrounding the nucleus to draw the distinction, one is at once confronted with the similarity of a plasma cell to a large mononuclear. In many cases, it is extremely difficult to differentiate between the two cells, the plasma cell and the large lymphocyte; but the following four points will materially assist one in the task.

(1) One pole of the nucleus generally touches the circumference of the protoplasm in one place, in a plasma cell.

(2) In the protoplasm of a plasma cell, irregular masses are to be seen, and they stain deeply with the methylene violet moiety of the borax methylene blue.

(3) The nucleus of a plasma cell stains more deeply.

(4) The nucleus of the large mononuclear usually contains more than one nucleolus.

The deep blue staining taken on by these masses which are to be seen in the protoplasm, is copied by the nucleolus, therefore the two structures have one point in common. Since the methylene violet is the basic half of the borax methylene blue, it may be assumed that both the masses and the nucleolus prefer basic stains. Further than this, staining *in vivo* will not take us. If we now turn our attention to fixed specimens, and stain them with Pappenheim's stain, we immediately notice that the protoplasm of the plasma cell stains homogeneously with pyronin, and it is not divided up into masses, and that the nucleolus also stains a brilliant red.

If sections are left for some hours in weak solutions of various reagents, and then stained with Pappenheim's stain, it is found that the protoplasm of the plasma cells and the nucleolus are far more resistant than the protoplasm of other cells, and that they behave like a globulin. Owing to the optical activity of both the nucleolus and the protoplasm, the globulin is shown to be in a colloidal adsorption compound with a lipoid (3).

All cells contain lipoids, and observers who have paid attention to the chemistry of cells, have always been careful to treat their material first with alcohol and ether, so as to remove the lipoids. No one has hitherto recognised that all the lipoids cannot be removed with alcohol and ether; in fact, those which are in an adsorption compound with globulin are untouched. These lipoid-globulin adsorption compounds are the very essence of the existence of the cells, indeed of life itself. I need only mention that the granules of the choroid plexus, and Nissl's granules are made up of lipoid-globulin complexes (4), to substantiate my statement.

Hitherto, the most resistant part of the protoplasm has been looked upon as being a nucleo-protein, and to-day it is generally held that Nissl's granules are of the same nature. The name "plastein" has frequently been given to this resistant substance, and to several other substances of which the observer has no knowledge.

Without going into the history of nucleo-proteins in the protoplasm of cells, I may say that they are not nucleo-proteins at all, but lipoid-globulins.

The marked avidity for pyronin which both the nucleolus and the protoplasm of plasma cells show, the fact that they are both resistant to reagents, the fact that both are feebly optically active, and the fact that both have feeble reducing properties, brings them into line with the phases of the leucocytozoon syphilidis. The resemblance is only superficially close, as when one attempts to measure the degree of resistance to reagents, etc., the protoplasm of the plasma cells and nucleoli fall far behind that of the parasitic bodies (3).

The division of a cell is dependent upon the presence of this lipoid-globulin complex, and as it is the nucleus which is concerned in this process, the nucleolus is found in the nucleus, and not in the protoplasm of the cell.

The lipoid-globulin in the protoplasm of the plasma cell is present for quite a different purpose, since when the protoplasm of a plasma cell breaks up, and it often does so without interfering in any way with the nucleus, the fragments still have the properties of lipoid-globulin. The function of a plasma cell is certainly not phagocytic, but, from analogy to other cells which also contain lipoid-protein, it would appear to be of a ferment nature.

The plasma cell is not only present in syphilis, for it is seen in any chronic inflammation, such as tuberculosis, or the chronic inflammation which may be produced by a piece of silk or wax.

In all cases, the plasma cell is morphologically the same, and although its gross action may be similar in every instance it is, nevertheless, specific in each case.

Take, for example, three plasmomata, one caused by syphilis, another by tuberculosis, and the third by a foreign body. Give an injection of salvarsan, and then make sections of all three again, when, on examination, it will be found that the only plasma cells which have altered, are those of syphilitic origin.

To explain this specificity, we must probe the chemistry and physico-chemistry of the plasma cell.

This may best be done by calling attention to what has been described as the "oxygen chain." Each link of this chain will be made up of free oxygen and a ferment, which activates it in varying degrees, according as to whether the first or last link of the chain is being dealt with. The first link is the red blood corpuscle, which contains free oxygen and a peroxydase; the ferment action is further increased by the iron in the hæmoglobin.

Oxidising enzymes have their action increased by metals; attention need only be drawn to the extraordinary accelerating action which manganese has upon some plant oxydases in support of this statement.

Red blood corpuscles supply every tissue with oxygen in an active state.

The next link in the chain is a mast cell, one of the functions of which is to supply the basal cell layer of the epidermis with the active oxygen for the tyrosine-tyrosinase reaction, which results in the production of pigment, and this is one of the protective mechanisms of the body.

In support of this statement, reference need only be made to the well-recognised increase of mast cells in urticaria, pigmentosa, ephelides, and all known pigmentary affections of the skin. Another possible function is to supply the next link with free active oxygen, namely, the nuclei of the cells of inflammation; a function which doubtless, and to a greater degree, the eosinophile cells possess.

The accelerating element in the mast cell is possibly sulphur. Nuclei contain free oxygen and a ferment for activating the same, and it is not nearly so strong as the peroxydase in the first two links.

Iron is the accelerator of the enzyme action in the nuclear link. The oxygen in the nucleus is used by the protoplasm of the cell and by the nucleolus.

The last link in the chain is the protoplasmic which contains oxygen, but no peroxydase. The activator probably comes directly from the nucleus, and indirectly from other cells which contain peroxydases, through the blood serum.

The accelerator of the enzyme action is the element contained in the drug which is prescribed against the infection; in the case of syphilis, arsenic, antimony and mercury, for instance. The lesions of syphilis may vanish without treatment, because of the ferment action of the serum, and of the protoplasm of the plasma cells.

The protoplasm of plasma cells is rich in lipoid-globulin, and it is well known that lipoids are activators as well as carriers of ferments, therefore, in the protoplasm of plasma cells and in the serum, the host has the means of overcoming the parasite. Treatment assists the host's resistance by accelerating the ferments and therefore destroys the parasites indirectly.

What the ferment is which destroys the leucocytozoon is not absolutely proved, since I have only been able to arrive at the probable ferment by excluding others.

The syphilitic parasite appears to be shown, in my investigations, to be made up of a lecithin-globulin envelope which encases nuclein; therefore, it may be *à priori* thought that the ferment is either a lecithase or a protease.

A lecithase exists in normal serum, and this causes difficulty in testing for a specific one, but as a result of several experiments which I have undertaken with the serum, and more especially with the cerebro-spinal fluid, which, under ordinary circumstances, contains no lecithase, I have been unable to prove the presence of either a specific lecithase or of a specific esterase. That is to say, the cerebro-spinal fluid in cases of general paralysis of the insane and tabes, did not break down lecithin, lecithin-globulin, triolein, tristearin, or a mixture of the fatty acid esters with lecithin-globulin.

The failure of Abderhalden's test, as used in pregnancy, to react with any regularity points against there being a specific protease.

In support of the ferment being an oxydase I have been able to collate the following facts:

(1) The granules in the epithelial cells of the choroid plexus give marked oxydase reactions, and, as shown by Pighini (5), they are able to synthesise indophenol from a mixture of a-naphthol and dimethylphenylenediamine hydrochloride, the blue colour resulting being dependent upon an oxydase zymotic action.

(2) These granules are increased in cases of general paralysis of the insane, and this shows that the zymotic action is increased.

(3) The cerebro-spinal fluid obtains its active properties partly from the cells of the choroid plexus.

(4) I have been able to prove that the cerebro-spinal fluid from cases of general paralysis of the insane is extraordinarily rich in oxydase ferments, while normal cerebro-spinal fluid contains none.

(5) The cerebro-spinal fluid from cases of general paralysis of the insane and cerebro-spinal syphilis, under certain conditions stains pure Nile-blue sulphate pink. This change from blue to pink is caused by glycerol esters, cholesterol esters, and fatty acids.

(6) The cerebro-spinal fluid in cases of syphilis of the central nervous system contains an excess of globulin; this is especially the case in cases of general paralysis of the insane and tabes.

(7) This globulin is in an adsorption complex with lipoids.

(8) Oxydases are frequently carried by lipoids; therefore, not only is there proof that the cerebro-spinal fluid from cases of syphilis of the central nervous system contains oxydase ferments, but also that the ferments are carried, and possibly accelerated, by the lipoid-protein complexes.

This view is still further supported by the analogy to the blood-serum and plasma-cells.

Still more convincing is the fact that I have been able to prove, that the granules of the epithelial cells of the choroid plexus and the tigroid or Nissl's granules, to be found in the nerve cells, consist of a lipoid-protein, and behave to reagents (3) similarly to the envelope of nucleoli, the protoplasm of plasma-cells, and the envelope of the syphilitic organism.

Pighini (5) showed that Nissl's granules also synthesised indophenol, especially those around the nucleus, which was to be expected, since the nucleus contains free oxygen and an oxidising ferment.

The explanation of the protective mechanism of the serum and the cerebro-spinal fluid against the syphilitic parasite, by means of oxidising ferments, is simple ; in fact, it is its simplicity which makes one think that it is correct, for the more one considers how the body protects itself, the more convinced one becomes that it is not nearly so elaborate a process as all have been led to believe.

After all, why should such an exceedingly complex ferment as a lecithase or protease be manufactured specifically against syphilis ? Supposing another protozoal disease sprang up in our midst tomorrow, the body would be ready to protect itself, and it could not possibly, in the short time at its disposal, manufacture highly complex specific ferments. Not only is it highly probable that the syphilitic infection is combated by oxidising enzymes, but probably most other infections are attacked in the same way. Fever is doubtless a protective mechanism, and between 39° C. and 41° C. is the optimum for most oxidising ferments. During fever not only is the serum globulin increased, but also the lipoid-globulin. Lipoid-globulins, as just shown, are carriers of oxidising ferments ; therefore the evidence for the view that most infections are combated by oxidising enzymes is strongly convincing. The interesting point which now arises is to whether the specificity lies in the oxidising enzyme, which I do not think it does, or in the manner in which the lipoid-protein is built up. My work on the *modus operandi* of the Wassermann's reaction and Abderhalden's test leads me to believe that specificity rests in the homologous configuration of the lipoid-protein molecules of the parasite to the host's protective substances.

DEGENERATE FORMS OF THE PLASMA-CELL.

I will now pass on to the degenerate forms of the plasma-cell, which have never been fully described before, although Unna some years ago drew attention to them (13), and which have frequently given rise to faulty histological interpretations.

When examined *in vivo* (Fig. 5) stained with borax methylene blue, large round cells, which stain red, are sometimes to be seen. They may contain no nucleus, or the nucleus may be found outside the cell, lying on a portion of its circumference. In some of the cells dots, masses and strands may be seen, which stain with the methylene violet, and are situated anywhere, and scattered about irregularly in the cell. These bodies may have no connection with the nucleus, and the larger the cell the fewer are to be found, and in many of the largest cells none at all are to be seen.

In fixed specimens (Figs. 3 and 4), the appearance of these cells is very different, and instead of being round homogeneous cells, they are often irregular in shape, and divided up into irregular sized loculi, or balls of protoplasm, many of which become loose and scattered about in the tissue. These balls stain with safranin, acid fuschsin, and give a berlin blue reaction with a mixture of potassium ferricyanide and ferric chloride. They do not stain well with pyronin, but in some specimens strands of protoplasm, which do stain with pyronin, are to be noticed in between the loculi. The strands are, no doubt, the same as the dots, masses, and strands, which were described in the *in vivo* method, as showing an affinity for methylene violet.

These ballooned plasma cells have in some cases lost their nuclei, while in others the nucleus has lengthened out, and fits one apex of the cell, like a cap does the head, and not infrequently it sends string-like processes down over the cell protoplasm. These cells are, no doubt, degenerated plasma cells, because the protoplasm gives amino-acid reactions, and the nucleus fails to stain with methyl green, owing to the disappearance of the nucleic acid radicle, which leaves the protein radicle (histone and protamime) behind.

The amino-plasma cell is a form of plasma cell which Unna (13) has called, from his examinations thereof in fixed specimens, hyaline plasma cell. The term "hyaline" rather suggests some relationship to cartilage, although it is very largely used for substances of which the observer has no knowledge. Now hyaline cartilage is a strongly basophilic substance, owing to its chondroitin sulphuric acid radicle. Unna's hyaline plasma cells are, on the other hand, acidophilic, and contain no acid radicle; furthermore, they have very strong reducing properties, and so cannot stain with methyl green, and, as I have shown that this reducing action is due to tryosine or trytophane, I

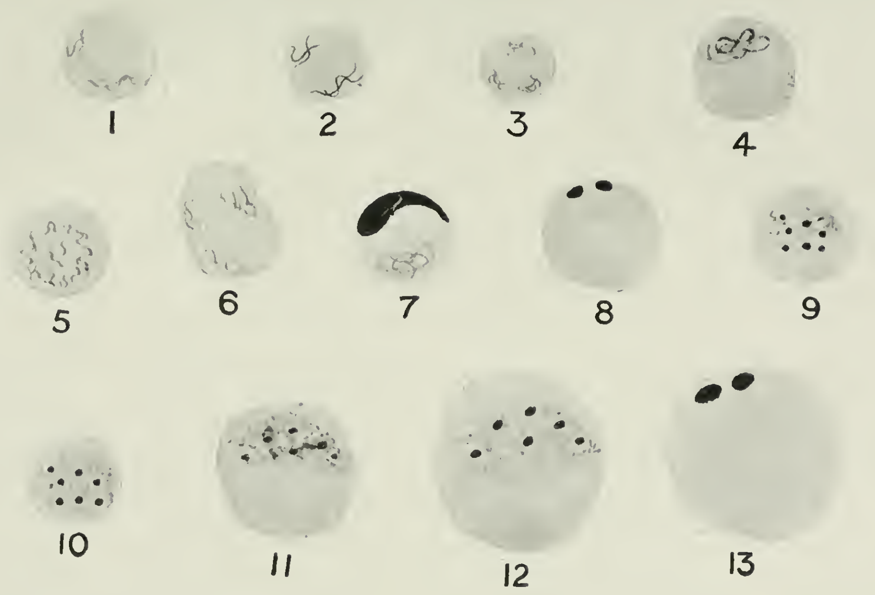


Fig. 5.

To Illustrate Dr. J. E. R. McDonagh's Article on The Rôle played by a Lymphocyte in Inflammation and its probable relationship to Sarcoma

consider that the best name for them is, amino-plasma cells. The cells are frequently to be met with in syphilitic material, but they are also to be found in any very chronic inflammatory lesion, viz. rhinoscleroma and ulcus molle serpiginosum.

It rarely occurs that plasma cells degenerate into crystalline forms (Fig. 6),* either as sheaves or as rectangular prisms. The nucleus in these cases remains intact, and stains fairly well with methyl green› and this is not invariably the case in the amino plasma-cells, a point which suggests that the crystalline degeneration is higher in the scale than the amino-acid degeneration. Further examinations also bear this out, because the crystals stain better with pyronin, and they have a feeble reducing action in comparison with the amino-acid cells.

If a cell degenerates, the products formed thereby must be chemical entities, which probably do not differ from those formed in the process of digestion. Between the albumose and amino-acid stages, one finds the polypeptides; therefore, as these crystalline cells are not so degenerate as the amino-acid cells, one is tempted to call them polypeptide cells, since we are all aware that polypetides can exist in the crystalline form.

SUMMARY.

A lymphocyte originates from endothelial cells, and that, as a lymphocyte, its function is to elaborate and activate oxidising ferments. A lymphocyte gives rise to plasma cells. The function of a plasma cell is to protect its host against an enemy, by an oxidising zymotic action. Plasma cells undergo degeneration into polypeptide and amino-acid cells, the latter form being hitherto regarded as hyaline degeneration.

THE PART LYMPHOCYTES AND PLASMA-CELLS PLAY IN DISEASE.

Let us now turn our attention to the study of the lymphocyte in disease, and note the morphological changes it and the plasma-cell undergo in inflammation, in the so-called leucæmic affections and in sarcoma.

(A) *Inflammation.*

In inflammation, a phenomenon which may be caused by various diverse factors, one sees a lymphocytic and plasma-celled infiltration, which disappears when the cause of the inflammation vanishes. Supposing, on the other hand, that the cause does not vanish, and that the host dies as the result thereof, is there any difference in the morphological characters of the protecting cells?

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* FIGS. 6–12 will appear in three-coloured plate with the concluding part of this article in the September number.

A plasma-cell infiltration *par excellence,* is to be seen in protozoal infections; therefore, to get cases which have succumbed to the infection, I have had to use rats which have died of sleeping sickness—material with which the London School of Tropical Medicine very kindly supplied me. I have chosen chiefly lymphatic glands for my study throughout this part of the work, because they may be looked upon as one of the best measurements of the protective capacity of the host.

Fig. 7 is a section of a lymphatic gland removed from the neck of a rat which died of trypanosomiasis.

One notices first of all a marked dilatation of a lymphatic vessel, with numerous free endothelial cells in its lumen. In the tissue surrounding there are also many endothelial cells. There is a well-marked plasmoma, in which the plasma-cells show a distinct change from the normal, in that the nuclei are freely dividing, and in some cells even three and four nuclei are discernible.

This picture, I feel, should be interpreted in the following light: Owing to the demand upon protective cells, those already formed are doing their best to multiply of their own accord to form double, treble, or quadruple the number of plasma-cells by simple amitotic division. More plasma-cells have to be formed, so there will have to be a heavy production of lymphocytes, and this necessitates primarily an increase in the number of endothelial cells.

In any infection the cause thereof will be combated first by those cells which are already formed; if these suffice to conquer, then all is well. If, on the other hand, they lose, they will have to call up their reserve forces, but in the meantime they will make an extra effort of their own by trying to multiply. Therefore, in a very severe infection which speedily causes the death of the host, you will get the multiplication of the forces already there, also an increase of the forces at the base, but the latter will be prevented from coming to the front; hence the reason why, in this section, the endothelial cells are not to be found in the active condition of manufacturing lymphocytes, why many of them contain more than one nucleus, and why very few lymphocytes are to be seen.

(B) *Leucæmia.*

The term "leucæmia" is an unfortunate one, as it means only leucocytes in the blood. Now, leucocytes are not manufactured in the blood, therefore they must be formed somewhere before they can get into the blood-stream. They may be formed in many places, viz., in the lymphatic glands, spleen, and bone-marrow. However many are formed in the first two organs, none will get into the general circulation, this being the case only when the bone-marrow is the depôt. Since the cause of leucæmia does not necessarily attack the bone-marrow first, it is at once seen that the blood-picture can only be a symptom of the disease which may be either absent or present. Therefore a patient may suffer from leucæmia for years without there being any change in the blood at all. Hence the reason why I have chosen the lymphatic gland as the best organ in which to study the lymphocyte, because, in practically all conditions affecting lymphocytes, the lymphatic gland plays a *rôle*. The leucæmias are generally divided into three main types: (*a*) lymphatic leucæmia; (*b*) myeloid leucæmia; (*c*) pseudo-leucæmia. Lymphatic and myeloid leucæmias never mix, *i. e.* one form never runs into the other. Myeloid tissue is, in adults at all events, limited to the bone-marrow, and when myeloid tissue has been found in the skin, lymphatic glands, spleen, etc., it has either arrived there as a metastasis, or has been formed *in loco* as a metaplasia. Whether both views are possible, or only one, does not at present concern me; but I would like to make the remark that many of the so-called myeloid metaplasias in the lymphatic glands are not myelocytes at all, but merely endothelial cells, such as are depicted in Fig. 7.

It is more than probable, that the endothelial cells of lymphatics, or such as one sees in large numbers in lymphatic glands, are analogous to the myeloblasts of the bone-marrow. In both instances, they are the parents of leucocytes. One of the most important points which a repeated examination of leucæmic tissue has brought out, is the tendency of the affected cell to approach to its embryonic morphology, a point which is strongly in favour of a probable bridge between leucæmia and sarcoma.

The peculiar localisation of the leucæmic process is again another suggestion of a relationship between leucæmia and sarcoma.

Owing to the fact that a case of lymphatic leucæmia may begin without any attendant changes in the blood at all, but simply as an enlargement of one or more groups of lymphatic glands, the term "lymphadenosis" has been frequently used instead of lymphatic leucæmia. Up to the present, lymphadenosis appears to be the better name, as by using it, such terms as the "pseudoleucæmia of Pinkus," the "aleucæmia of Pappenheim," etc., are avoided, provided that it always be remembered that the disease may at any time develop the typical blood-picture of lymphatic leucæmia. Unfortunately, the English have a term "lymphadenoma," which means a new growth of lymph gland tissue. It is used to designate enlarged glands, which upon examination show no evidence of having increased in size, due to inflammation, such as might be caused by tubercle, etc.

With many observers, lymphadenoma and Hodgkin's disease are two names for the same condition.

The lymphadenoma as seen by the English is never followed by changes in the blood, such as are met with in lymphatic leucæmia. Therefore confusion may easily arise, when the same term is applied in England and on the Continent to apparently widely different conditions.

Is it not possible that these various types are links in one chain of events, along which we can trace the connections, as we did in Part I (2), between inflammation and new growth of epithelial tissue.

An enlargement of lymphatic glands may result from inflammation; if the cause of the inflammation is continuous other stations along the line may be attacked.

The stations along the line in which lymphocytes are formed may, for sake of convenience, be divided into three: (1) lymphatic glands; (2) spleen; (3) bone-marrow. It is well-known that in persistent inflammation the body is continually drawing upon its reserve forces, until the most important and the last card is played.

If station (1) is attacked, there will merely be an enlargement of one or more groups of lymphatic glands, to accommodate the increased local production of lymphocytes. However severely station (1) may be attacked, *i. e.* however large the glands may get, no lymphocytes get into the general circulation. If the inflammation continues, and the lymphatic glands can do no more, the next station—the spleen—is attacked. To whatever size the spleen may be enlarged, none of the lymphocytes formed therein reach the general blood-stream. If the inflammation still continues, station (3) is attacked, and when that is the case, the lymphocytes formed in the bone-marrow find their way into the circulation.

So long as only stations (1) and (2) are affected, the condition is one of lymphadenosis; when station (3) gets involved the condition becomes lymphatic leucæmia.

The course just depicted diagrammatically is also frequently seen to be the same clinically. A patient complains of enlargement of the lymphatic glands—blood-picture normal. Later, the spleen, and perhaps the liver, become enlarged, blood-picture still normal. Gradually the lymphocytes in the blood increase, absolutely and relatively, until the white blood-corpuscles are composed of nothing but lymphocytes, when the patient dies. Post-mortem, the bone-marrow is found to be affected.

Station (1) is not always the first affected; it may be station (2) or station (3). Clinically, cases have been described in which there was an enormous enlargement of the spleen, with little or no enlargement of the lymphatic glands, and with a normal blood-picture, which later developed the typical blood-count of lymphatic leucæmia. If station (3) is affected first the disease runs an extremely rapid course, often killing the patient in a few weeks. In such cases the blood-picture is present from the start, and there may be little or no enlargement of the spleen and the lymphatic glands.

It would appear from the foregoing, that of the three stations the third was the most important; in other words, the base, in which operations were not carried on by the host until the resisting capacity of the lymphatic glands and spleen had been overcome. As the base may be primarily attacked, it would not be of much avail to call upon the other two stations for assistance, hence the glands and spleen are usually not involved to any great extent when such is the case. It might be said that when the bone-marrow is affected, the patient dies before the glands and spleen have had time to come to the rescue, but, in support of the view that they are of minor importance, is the fact that when station (2) is attacked first the lymphatic glands do not, as a rule, become implicated, and when the attack continues it is the bone-marrow that comes to the rescue, and not the glands.

Whether the cause of inflammation which gives rise to that group of lymphadenosis, ending in lymphatic leucæmia, is always the same, or whether there is more than one cause, or what the cause or causes are by no means settled.

(c) *Sarcoma.*

The epithelial cells multiply in inflammation; they may also multiply when there is no inflammation, when they constitute what is called a new growth.

The same with the lymphocyte. Lymphocytes may multiply rapidly in inflammation, or they may multiply rapidly after the nature of a new growth.

If the cells of a lymphatic gland, or a group of lymphatic glands, take on the characteristics of new growth, when a certain number have been formed, they will break through the capsule of the gland, invade all neighbouring organs, and give rise to metastases. The cause of the initial onset of the new growth formation is unknown; but, nevertheless, its action is generally highly localised, with the result that the spleen and bone-marrow are never called upon to assist, which means that there will be no increased lymphocytosis.

Lymphadenosis could be divided into two classes: (*a*), inflammatory lymphadenosis; (*b*), new-growth lymphadenosis.

The most interesting point that now arises is, whether there is any connection between these types of lymphadenosis; if so, then our lymphocytic chain is complete.

As the inflamed epithelium in a chancre or a gumma may assume malignant characteristics, therefore, if there is a connecting link between the two types of lymphadenosis, it will be found in the inflammatory class, *i.e.* the lymphocytes in a gland from a case of inflammatory lymphadenosis become converted into a new-growth lymphadenosis.

Clinically, it may be easy to tell when a malignant epithelioma develops, but not so in the case of a malignant lymphadenoma. In both cases a microscopic examination is generally necessary to settle the diagnosis. One point which suggests malignancy in epithelial tissue is the invasion of the corium by the epithelial cells. Invasion, in the case of a lymphatic gland occurs, but it is not easy to recognise. Moreover, the capsule thickens when the gland enlarges, and acts as a protective barrier for some time. Histological examination, and a close study of the lymphocytes, is the only means of telling whether the enlargement of a gland is due to inflammation or to a new growth. Before describing the lymphocyte in lymphadenosis, I would just like to call attention to the fact that myeloid leucæmia may be divided up like lymphatic leucæmia.

The myelosis can be separated into inflammatory myelosis and new-growth myelosis. In the former, myelocytes are found in the blood, but not so in the latter. The inflammatory type may run an acute or chronic course, and in every other detail, myelosis may be found to resemble lymphadenosis, and connecting links exist between the inflammatory and new-growth types of both.

With epithelium it is noticed that different irritants affect different epithelial cells. The sun's rays, for instance, seem to affect the lowest layers for preference, as the epithelioma resulting therefrom closely resembles a rodent ulcer. The X-rays, on the other hand, seem to affect the upper layers, as horny tissue and cell nests are the main features of the epithelioma.

This is likewise the case with the lymphocyte. It may be attacked while a plasma cell, while a lymphocyte just after it has left the endothelial cell, and even the endothelial cell itself may be affected.

In the inflammatory lymphadenosis, the lymphocytes are increased *in loco* ; if the cause of the inflammation continues, not only the spleen and bone marrow try to come to the rescue, but the cells themselves in the primarily affected glands will make every effort to protect the host. Therefore, in different cases there will be a different call upon the various phases in the life history of the lymphocyte, so that even the parent cells may be involved.

Therefore, in the inflammatory cases, the increase of the cells will not necessarily be all of one type, as is the rule in the new growth cases.

As will be seen later, all the phases in the life-history of the lymphocyte are not invariably involved, however persistent be the action of the irritant. Any one phase may take upon itself to multiply in such a way that it constitutes malignancy.

Therefore, the difference between inflammatory and malignant lymphadenosis will not depend upon whether the growth invades healthy tissue or not, since, more often than not, invasion cannot be determined; but it will depend upon whether the phases in the life history of the lymphocyte from plasma cell to endothelial cell come to the rescue in their turn, should their help be required, or upon whether any one phase takes the whole protective work upon itself. The former signifies inflammation, the latter malignancy, but, when the histological details of the various phases are dealt with, it will be seen that a hard and a fast line between inflammation and sarcoma does not exist. In other words, it will be seen that there is a chain, the first link of which is inflammation, and the last link of which is sarcoma, and that there are other links in between which connect the two.

If lymphatic glands are removed from cases of lymphadenosis, both from the clinically inflammatory and from the new growth types it will be found, when they are examined histologically, that scarcely any two are exactly alike. In many cases it is, moreover, impossible to distinguish between a gland removed from a case of inflammatory lymphadenosis, and one removed from a case of malignant lymphadenosis. The extreme types of each condition are easily distinguished and as their characteristics are to be found in all the text-books dealing with the subject, I only propose to refer to the intermediary types. The more chronic the condition the longer the structure of the gland will be maintained and the less likelihood will there be of the parent cell being called upon to assist.

The more acute the condition the less will the structure of the gland be maintained and the greater will be the call upon the endothelial cells. Since the endothelial cells are to be found in the follicles, it will stand to reason that in some of the acute glands only follicles are seen. In the still more acute glands the follicles are all broken up and the gland merely consists of irregularly scattered and irregularly formed cells, not necessarily many in number; on the contrary, there are less than might be expected. Connective tissue strands are to be found amongst the cells.

Naturally, cases are to be met with between the chronic and acute forms, and a chronic case may suddenly become acute. It is with these intermediary forms that the malignant type is to be most frequently confused, the distinction being often impossible.

In the so-called chronic lymphadenosis the capsule of the gland may be infiltrated with lymphocytes, and these cells may even be found in the surrounding glandular tissue. The same appearances are to be met with in glands removed from cases of Hodgkin's disease and the so-called lympho-sarcomatosis. In chronic inflammatory lymphadenosis, but more often in the subacute form, enormous numbers of endothelial cells may be seen, giving birth to lymphocytes. These are also to be seen in glands from Hodgkin's disease. In both cases plasma-cells are to be found, some of which are dividing and subdividing. Primary and secondary division of lymphocytes are to be seen, and in some cases the nucleolus of the lymphocyte is found to be enormously increased in size, and often in number, in the one cell.

If my remarks upon the pseudo-parasites of malignant epithelioma are referred to (2), it will be noticed that the pseudo-parasite was the nucleolus, which, after being discharged from the cell, took upon itself parasitic characters by dividing and subdividing, both by mitosis and amitosis, after the budding fashion.

Although the various phases which one of the illustrations shows as occurring in malignant epithelioma appear to be perfectly regular and straightforward, they are by no means so in every case of malignant epithelioma, and although the same process may be witnessed in both inflammatory lymphadenosis and Hodgkin's disease, it is still less regular and straightforward.

Now, Hodgkin's disease is no doubt ultimately a malignant disease of the lymphatic glands; it never ends in leucæmia. No two glands are microscopically the same, and frequently the histological characters are identical with those from a case of inflammatory lymphadenosis, which ultimately ends in lymphatic leucæmia.

Therefore it can be said that there is no hard and fast line between hyperplasia and lympho-sarcomatous growth. After all, there is no sharp distinction between inflammation and malignancy, and the main determining point appears to be as to whether the further phase is called up to protect, or whether the nucleolus of the phase affected takes upon itself the sole responsibility.

As the nucleolus of lymphocytes may behave pseudo-parasitically in what we clinically call inflammatory lymphadenosis, it is at once clear that, when such is the case, the case is really malignant.

In support of the statement above mentioned, *i. e.* that a case of lymphatic leucæmia may really be malignant in the latter stage of its course, mention need only be made of the chloromata, or, as they are frequently called, the chloro-lymphadenoses. Chloromata have, by most observers, been looked upon as malignant growths, but since they are so frequently associated with changes in the blood characteristic of lymphatic and myeloid leucæmias, they have equal right to be regarded as inflammatory growths. There are two forms of chloromata, the lymphatic and the myeloid; both may run an aleucæmic course and not differ from the analogous conditions—Hodgkin's disease and new-growth myelosis—while, on the other hand, although clinically and histologically the same, they may run a leucæmic course, thereby simulating inflammatory lymphadenosis and myelosis.

As we shall soon see, lymphadenosis is occasionally accompanied by skin lesions; such is the case, although much more rarely, with chloro-lymphadenosis. The green colour is not necessarily seen in every hyperplasia, or metastasis in every case of chloroma, which strongly suggests that the condition is not originally an entity, but only becomes so when the cells—lymphocytes and myelocytes—undergo some chemical change to which the green colour is due. The colour rapidly disappears, but is restored again by H_2O_2, a fact which permits one to theorise that the green colour is due to an oxydase reaction upon the protein, or lipoid-protein molecule of the cell. I have noticed a similar green colour result from the oxidation of protagon and cerebrin adsorption compounds with globulin. Fortunately, and unfortunately, the condition is so rare that an exhaustive chemical investigation is not easily pursued.

Pseudo-leucæmia.

We can now pass on to the so-called pseudo-leucæmias.

The supposed difference between pseudo-leucæmia and leucæmia rests upon whether there are changes in the blood or not. There is no histological difference in the skin or glandular lesions of the two conditions, and since a case of leucæmia may run an aleucæmic course for months, or even for years, it looks as if the difference is purely arbitrary.

Clinically, it would appear at first sight that the division of the two conditions is justifiable, but when the reason which accounts for the different clinical pictures is explained, it will be readily seen that the pseudo-leucæmias are merely some of the links in my lymphocytic chain.

If the term "pseudo-leucæmia" is applied to those conditions in which the histological appearances of the lymphatic glands are the same, but only to that class which to the end runs an aleucæmic course, Hodgkin's disease must be included therein. To my mind Hodgkin's disease partly resembles lymphatic leucæmia, with one main difference, that the lymphocytes *in loco* assume malignant characters in the former, while in the latter, before the lymphocytes assume malignant characters, the spleen and bone-marrow come to the rescue.

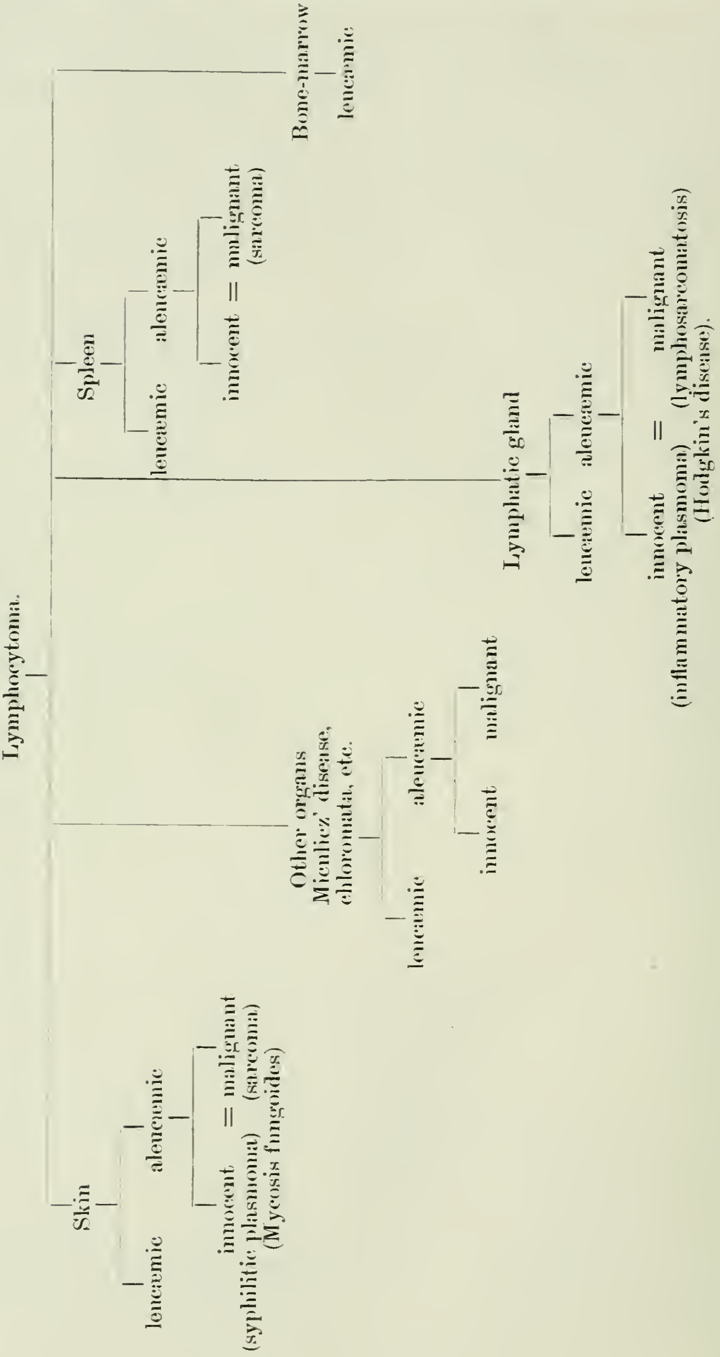
A clinical entity of the group of pseudo-leucæmias is Miculicz' disease, in which a leucæmic infiltration of the eyelids, cheeks, orbits, lachrymal, salivary, and mammary glands occurs.

Here we have the first indication of a lymphocytic growth occurring elsewhere than in the lymphatic glands, spleen, or bone-marrow. Many skin diseases commence as a lymphocytic growth, during the course of which the lymphatic glands become enlarged. If, then, an irritant makes itself felt first in the skin, and the irritant happens to be one which gives rise to the formation of lymphocytes only, it stands to reason that a long time may have to elapse before the spleen and the bone-marrow are called upon as last resources. The risk of such a case dying before the bone-marrow is affected is greater than when the disease starts in the lymphatic glands; therefore it can easily be understood that it would only be natural for a leucæmic affection of the skin to run an aleucæmic course. Just as the lymphocytic growth starting in the lymphatic glands may assume malignant characteristics as an extra protective measure, as is seen in Hodgkin's disease, so may the lymphocytic growth which starts in the skin.

As the lymphocytic growth in a lymphatic gland may be malignant from the start, as in lympho-sarcomatosis, so may the lymphocytic growth in the skin. Therefore the same events may take place in the skin as in the lymphatic glands; in other words, the leucæmic conditions of the two are analagous. There is less likelihood of the skin form running a leucæmia course, but it is possible, therefore the term "pseudo-leucæmia" may become ambiguous.

It would probably be better to drop the term altogether, to do away also with the word lymphadenosis, and to adopt the following classification.

LYMPHOCYTIC GROWTH.



Lymphocytomata.

A lymphocytoma may begin in the skin, other organs of the body, lymphatic glands, spleen, or bone-marrow. In all cases but the last it may run a leucæmic or an aleucæmic course. The leucæmic ends fatally and so quickly that no true division between benignity and malignancy is possible or necessary, since the cells in any case finally take on malignant characters.

With the aleucæmic lymphocytomata the case is different; the condition may be primarily innocent or primarily malignant (sarcoma). Intermediary stages exist, such as Mycosis fungoides in the case of the skin, and Hodgkin's disease in the case of the lymphatic glands.

It is the study of Mycosis fungoides, Lymphodermia perniciosa, and Hodgkin's disease which enables one to make a chain consisting of several links, of which the first is an inflammatory lymphocytoma and the last a malignant lymphocytoma—a mesoblastic chain analagous to my epiblastic chain (2).

We come now to describe the various skin lesions to be met with. They will naturally fall into two classes: (*a*) Those which start in the skin, true lymphocytomata, (*b*) those which are secondary to lymphocytomata, which have commenced elsewhere, *i. e.* symptomatic. We will consider the latter first, as from our point of view they are relatively unimportant. In cases of chronic inflammatory lymphocytomata the patient frequently complains of itching, the skin is usually dry, and occasional attacks of Urticaria papulosa and vesiculosa arise. If the itching is intense the urticarial wheals may, owing to scratching and the secondary infection arising therefrom, become converted into small granulation tumours, which, in time, spontaneously disappear. In cases of acute inflammatory leucæmic lymphocytomata the most common skin lesion is a hæmorrhagic one, in the form of petechiæ, which in some cases become so big that the skin over them necroses. Of the true cutaneous lymphocytomata there are several varieties, and although clinically two cases are alike a normal blood-count may be obtained from one, and from the other a lymphocytosis; in other words, the lesions belonging to the leucæmic and aleucæmic divisions are in many other ways the same: *Leucæmia cutis* is characterised by swellings in the skin, which vary in size from a small pea to a pigeon's egg and bigger. They are adherent to the skin, but movable on the deeper structures. They are smooth and often flat on the surface and mostly soft to the touch. They vary in colour from a bluish-red to a brown-red, the variation depending upon the depth in the cutis at which they are situated. Occasionaally large areas of skin are affected with a diffuse swelling, and several cases have been described in which the face, forehead, cheeks, lips, and ears have been implicated. In the classical case, of which there is a moulage in Finger's clinic in Vienna, the face is so involved that the patient looks as if she was suffering from the leontiasic condition to be met with in leprosy.

The tumours may remain unchanged for years, or some may spontaneously disappear, or the disease may rapidly spread and kill the patient. The blood-count may be normal, or there may be a lymphocytosis.

Histologically, one finds in the cutis a collection of cells, which consists entirely of lymphocytes. It is stated that a space is always left free between the tumour and the epidermis, which is not the case in Mycosis fungoides, hence a ready means of distinguishing the two conditions.

The statement is totally incorrect, since not infrequently in Leucæmia cutis—especially in the diffuse infiltrated lesions—the collection of lymphocytes reaches up to, and presses upon, the epidermis; while, in several cases of Mycosis fungoides, a free space exists between the epidermis and the cellular infiltration, depending entirely upon whether an early or late lesion is examined, upon whether the lesion is small or large, and upon the area through which the section is made.

Several of the tumours of Leucæmia cutis have been known to ulcerate, and in this fact lies the close resemblance between this condition and Mycosis fungoides.

A leucæmic lesion of the skin may have a green colour, and so be a chloroma, but the condition is extremely rare. The starting point of the new growth may not be in the lymphocyte, but in the plasma cell, the cell to which it gives rise. The same occurs in epithelioma. The process may originate in the basal cell layer, or in the layers above, which develop therefrom.

If the process is a malignant one, the growth will consist of the cell entirely primarily attacked, *i.e.* a lympho-sarcoma will consist of only lymphocytes possessing malignant characters. A sarcoma arising in plasma cells will consist of only plasma cells possessing malignant characters.

As a plasma cell arises from a lymphocyte any new growth thereof should be considered here.

Plasmo-sarcomatosis (Fig. 12).—The condition appears to be extraordinarily rare, and as I have had a case under my care, it would be as well to publish it in full (11).

A man, aged 32 years, came up for advice, complaining of an ulcer in the middle of the upper third of the thigh. The ulcer was hard, crateriform, and the skin for some distance round was markedly indurated.

The forerunner of the ulcer was a small hard and painful lump, which made its appearance six months previously. As the lump began to soften in the middle it was incised, but only a very small quantity of pus came from it. From this time onward the ulcer readily increased in size. When I first saw the patient the ulcer was 1½ in. in diameter, bled freely on touching it, and was extremely hard. The surrounding skin was stretched, of a brownish red colour, indurated, and immovable. The inguinal glands on the affected side were enlarged and hard. The patient had never had a venereal disease.

In spite of all treatment, which was unavailing, the ulcer readily increased in depth and size, the inguinal glands on both sides became, affected, and the patient died six months later in a condition of cachexia. Post-mortem secondary growths were found in the spleen, in the kidneys, in the mesenteric glands, and in the walls of the small intestine.

A microscopic examination of the margin of the ulcer showed the following characters (Fig. 12):

The epithelium is hypertrophied and acanthotic, the papillæ are enlarged, otherwise the epidermis is normal. The corium is filled with new-formed connective-tissue cells and plasma-cells. The capillaries are dilated, but are of normal structure. Deeper in the corium the walls of the blood-vessels are hypertrophied and infiltrated with lymphocytes.

Arranged peri-vascularly are numerous plasma-cells, which, in some places, can be clearly seen to have originated from lymphocytes, which, in their turn, have arisen from the endothelial cells.

Deeper still in the corium or subcutaneous tissue a mass of cells is to be seen, between which there is no connective tissue. Each cell is three or four times larger than a normal plasma-cell, and the nucleus takes up the greater part.

The protoplasm stains faintly and is granular, and in many of the cells the outline of the protoplasm is broken, so that the granules appear to be extracellularly situated.

The nucleus stains faintly, contains little chromatin, but one or more brightly staining nucleoli.

Some cells contain two or three nuclei, each of which may contain more than one neucleolus.

Here and there bare nuclei are to be seen, owing to the degeneration of the protoplasm which once surrounded them.

The nuclei have divided neither by mitosis nor by true amitosis, but have been merely split up irregularly according to the arrangement of the existing chromatin strands.

In the margin of the new growth numerous plasma-cells are to be be seen, and the gradual transition from these plasma-cells into the sarcoma-cells is, in several places, evident.

To a similar condition the terms "lymphosarcomatosis" and "leucosarcomatosis" have been applied. The disease may start as an ulcer with intense brawny induration of the tissue around, as in case described, or it may be the end of many of the cases belonging to the Mycosis fungoides group.

The so-called Sarcomatosis cutis (Kaposi) (one type) is the same condition as the Leucæmia cutis. The other type is a distinct condition, which has no immediate relationship to the lesions under discussion.

The Sarcomatosis cutis (Spiegler) is quite another condition, and is identical with the so-called sarcoid, which is not a new growth at all, but an ordinary inflammatory lesion, due to the tubercle bacillus or its toxin.

(*To be continued.*)

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on June 18th, 1914, Dr. J. J. Pringle, President of the Section, in the Chair.

Dr. Ivor J. Davies showed *two cases of erythema due to carbon monoxide poisoning*. Dr. I. J. Davies expressed his regret that the cases did not show any traces of erythema to-day, though erythema was present when he addressed the Neurological Section a month ago, and so there did not seem sufficient justification to bring the cases forward. The colliery explosion happened in October of last year, and there were only eighteen survivors out of 500 miners. The rescued had been exposed to the fumes in the mine twenty hours, and they were brought to a temporary hospital which had been erected close to the mine. Nine of the cases showed acute erythema. Erythematous lesions similar to those described in the eighteen survivors were found on several of the bodies brought up within a few days of the disaster. The remaining bodies were not brought out of the mine for several weeks, and some could not be removed from under falls of roof for several months. Thus systematic examination was impossible owing to decomposition, and the necessity for prompt removal after identification and certification of the cause of death. The facts just described go far to support the view expressed by the writer that the cutaneous lesions were not primarily pressure phenomena, but true manifestions of after-damp poisoning.

Dr. E. G. Graham Little showed a *case of pellagra with skin eruptions*. The patient was a boy, aged 17 years, who had been under the care of Dr. S. A. Clarke, of Horley, who had diagnosed the case as pellagra when the skin symptoms had made their appearance. The history was very interesting and was as follows: The boy had been perfectly well up to April, 1913. A photograph taken shortly before this date showed a robust youngster for his years. The story given by the lad was that he was bathing in the river, and while in the water got stung by some fly, not identified, on the shoulder and scrotum. The lesion suppurated in the first site and was cauterized by Dr. Clarke, and a scar the size of a shilling remained visible on the right shoulder. From this date the boy began to be ill and to waste. The only written records of the case are to be found in the entries in Dr. Clarke's ledger and day-book, which he has been kind enough to supplement with his recollection of the symptoms for which treatment, there detailed, was given. Thus, in July there is an entry that he was for some weeks on a course of bismuth, which was prescribed for gastro-intestinal symptoms accompanied by vomiting and diarrhœa. Wasting became so pronounced that tuberculosis was suspected, a diagnosis which received support from the fact that the boy presented signs of pleurisy with effusion, which was relieved by tapping the chest in August, 1913. About the same time he was seen in London by Dr. Sydney Phillips, who suggested the diagnosis of abdominal tuberculosis, the mesenteric glands being enlarged. Some deepening of pigmentation of the skin about the back lent support to a suggestion that there was tuberculous affection of the suprarenals. There were no signs of pulmonary tubercle. He was seen frequently by Dr. Clarke during the early months of this year, and prescriptions of calcium chloride, quinine, and creosote are recorded. The patient had ceased to follow his occupation as a mechanic's assistant some time in May, and he was treated on the lines of a tuberculous patient, with a plentiful diet, and fresh air and rest, but was not kept in bed.

On April 9th, 1914, he was able to take a four-mile walk. The following day (Good Friday) he was "burnt by the sun" while sitting in the garden, and the skin became reddened and swollen on the dorsum of the hands, on the forehead, nose, and neck. There was also some vesication of the hands, and there was a sharp demarcation between the healthy and reddened skin. The reddened areas became deeply pigmented and later exfoliated, apparently synchronous with the skin symptoms, or a little later, the nervous symptoms to be noted immediately appeared. The knee-jerks, which had increased, became absent, the pulse rapid, and the respirations shallow and very frequent. He was given strychnine for these symptoms on May 14th, but was not kept in bed, and four days later arsenic was administered for the first time in small doses of 2 minims of the liq. arsen. three times a day. As it has been suggested that some of the symptoms to be detailed are due to arsenic, it may here be said that he took, in all, only 1½ dr. of the liq. Fowleri throughout, and the neuritis seems to have preceded its administration. All the symptoms improved, the skin becoming completely exfoliated in the pigmented areas, leaving a perfectly smooth white surface, and the boy became so much better that Dr. Clarke was inclined to sanction his bicycling. A second similar, but, as regards the neuritis, more severe attack occurred towards the end of May, and the patient was seen for the first time by the exhibitor on May 31st, 1914, when the patient, for the first time since his attack of pleurisy in August, took to his bed, where he has remained since then. At this date he had a pulse of 160, respirations between 40 and 50, and was unable to stand up. He had peculiar walnut-coloured pigmentation of the dorsum of the hands, extending from the fingers to about 3 in. above the wrist on the extensor surface only; and there were patches of similar pigmentation on the neck on both sides, on the forehead, and slightly over the nose. There was deep pigmentation of the penis, and scrotum and sacral skin. The whole face was deeply flushed and hectic looking. At no time was there any temperature. He was motored up to St. Mary's Hospital a week later, and is at present an in-patient there.

Condition on admission to the hospital: Dr. Wilfred Harris was kind enough to go over the nervous symptoms and reported the presence of multiple peripheral neuritis. These were wrist-drop, foot-drop, palsy of the diaphragm, absence of all deep reflexes except jaw-jerk. Palatal and pharyngeal muscles were not involved. There was general loss of power and tone. The grasp was extremely feeble. There was slight lateral nystagmus, mostly to the left; no cycloplegia; the pupils reacted slowly. Chest: There were no physical signs of tubercle, but some moist sounds at both bases; respirations, 40 per minute, "see-saw" and shallow. Pulse, 156 per minute. The heart sounds were weak and a slight murmur was audible over the tricuspid area. The heart was dilated to right and left. There was œdema of both legs, with pitting on pressure, from the ankle to above the knee; sensation to touch and pin-prick was dulled over the œdematous area. Urine examined on admission showed specific gravity 1015, slightly acid; increased phosphates; trace of albumin; no sugar Examined June 29: Specific gravity was 1015, and much mucous deposit and bacilluria, probably of coli organisms very actively motile; no albumin. He was given tinct. digitalis, 8 minims, every four hours, and hypodermic injection of liq. strychnine, 3 minims, every four hours.

Five days later there was general improvement of the nervous symptoms, and the heart and respiration had slowed down materially. The nystagmus had disappeared. The fundi were normal. Muscle tone was generally better, but he could not stand up.

A lumbar puncture was made on June 12, and half a test-tube of clear fluid was removed for examination. No cells or organisms were found in the centrifugalized fluid. A film had been prepared the day after admission from the blood and showed no organisms, and no abnormality of cells on differential count. The autochrome picture exhibited with the case was taken by daylight on June 12. The pigmentation had become greatly less and much of the brown skin had exfoliated, leaving smooth pink denuded surfaces. Progressive exfoliation had removed, by the time of the exhibition of the case, still more of the characteristic colour. But Dr. Sandwith, who saw the patient at St. Mary's on June 11, when the colour was already less deep than on May 31, when Dr. Little had first seen the case, was convinced of the pellagrous character of the skin symptoms, while doubtful of the significance of the nervous accompaniments. In the great majority of cases reported, the nervous symptoms had implicated the central system, the spinal cord and brain, but in this patient this had at no time been the case. The presence of peripheral neuritis had been regarded as making the acceptance of the diagnosis of pellagra difficult, but as a matter of fact peripheral neuritis had been reported in numerous cases. Thus, in a series of twenty-eight recorded by Cohoon and Farnell, peripheral neuritis, with foot-drop and muscular atrophy, was present in eight cases. Knee-jerks were absent in fifteen cases, and diminished in five.

Kinnier Wilson, examining thirteen cases of pellagra for nerve changes, of which nine were derived from Nyasaland and four from English cases, reports in the first place that the findings in the English cases were identical with those in the African cases. He states that "changes in the peripheral nerves are practically constant and considerable importance must be attached to them. They are often very advanced, and afford evidence of parenchymatous and interstitial changes in the peripheral nervous system, a reaction to a toxic invasion. It is not easy to determine whether the peripheral nerve changes accompany, precede or succeed the change in the cord. The effects of the toxæmia appear either simultaneously in the nerves and cord or previously in the former. The histological changes are not those of an infection by blood or lymph stream, but bear out the probability of the toxin coming from the abdominal cavity. The morbid agent is probably not a virus, but a toxin, as far as the nervous system is concerned." *

In this connection Dr. Sandwith has been good enough to contribute the following note on the case:

"The existence of peripheral neuritis does not exclude the association with pellagra, because with the latter disease you may have a great variety of nervous phenomena. The association of a pellagrous rash and of peripheral neuritis, and, what is even more important, the simultaneous clearing up of both the pellagra and the peripheral neuritis, are in favour of both the rash and the nervous symptoms being due to one cause, such as deficiency of nutrition. On the other hand, this is somewhat negatived by the statement that he has had extra feeding up. It sounds like a case of early tuberculosis, but this need not modify the pellagrous diagnosis, because tuberculosis often occurs in the pellagrous. The two facts in favour of pellagra are the appearance and sites of the rash, preceded by prolonged diarrhœa."

It was difficult to assign any other cause than pellagra for the neuritis in this instance. It had been suggested that drugs might have caused the symptoms, but the prescriptions which Dr. Clarke had been good enough to let the exhibitor see gave no countenance for this suggestion. Dr. MacLeod had felt some difficulty in accepting the skin condition as pellagrous because of the short interval which elapsed between the onset of erythema and exfoliation, but on this point Dr. Sandwith was emphatic in his opinion that early pellagrous eruptions usually disappeared completely within quite a short time, often within three weeks after rest and treatment in hospital.

It was of interest to record that a notable recent browning of the skin of the neck recurred as the result of an accidental exposure of the face to the sun while lying near a window in the ward.

With regard to the cause of pellagra the views held are still too conflicting to offer any practical utility of discussion. The history given in this case of a bite which ushered in the symptoms rather supports the contention of Sambon that it is the *Simulium reptans* that harbours the parasite supposed to be responsible for the production of pellagra. This fly is found in the vegetation about running water, and is very widely prevalent in Europe. But pellagra has been found established in parts of the United States, where skilled entomologists state the simulidæ are not found. This fly, therefore, though it may be one host of the supposed parasite, cannot be the only host. The American observers indict another fly, the stomoxys, or stable fly, of which one species, *Stomoxys calcitrans,* is of almost world-wide distribution, and incidentally it is of interest to note that this species has been accused by two independent sets of observers of being the carriers of the infection of anterior poliomyelitis. In the statistics collected by the Pellagra Commission appointed by the State of Illinois, there was a remarkable preponderance of the disease among women and children, and it was suggested that homekeeping habits fostered the spread of the contagion. Stable refuse, especially when mixed with horse dung and urine, is a favourite breeding ground for *Stomoxys calcitrans,* and the probability of finding these conditions in the neighbourhood of dwelling-houses of the poorer population may explain the incidence in home-dwellers rather than in workers in the field. I have not been able to find any positive evidence of a bacterial cause for pellagra; the nearest approach to it is an observation by W. H. Harris, who, using a filtered virus derived from a human subject, inoculated two monkeys with it. The virus was recovered from these two monkeys and transmitted to a third, and each of the three monkeys developed all the intestinal, dermatological, and nerve evidences of pellagra without any special attention having been paid to the diet. The hypothesis which ascribes pellagra to an effect of malnutrition, or to the consumption of rotten maize, seems to be losing ground. This possibility was at any rate absent in the case just recorded. The Illinois Commission conducted a lengthy experiment, with uniformly negative results, with monkeys fed on healthy and rotten maize. Results were also negative with monkeys fed with fæcal matter excreted by pellagrins and with monkeys inoculated with tissue emulsions and body fluids of pellagrins.

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* See *Proceedings*, 1914, vii (Neur. Sec.).

No further information could be obtained about the initial bite, but it was of great interest, on the authority of Dr. Winkelried Williams, who had seen the present patient, to learn that a case of quite definite pellagra had been admitted into the Sussex County Hospital last summer, which came from Horsham, which is only twelve miles from Horley. The suggestion that the boy, although in comparatively comfortable circumstances, had been ill-nourished, could not be sustained, and the dietary excluded in particular the possibility of assigning eating of maize as a cause. Dr. Little believed this to be the first certain case of pellagra to be shown at any medical society in London and every effort would be made to prosecute the study of the patient while he remained in St. Mary's Hospital.

The PRESIDENT (Dr. J. J. Pringle) said the Section must be greatly indebted to Dr. Graham Little for bringing the case forward, and, personally, he thought the diagnosis was established on good grounds. He was under the impression that peripheral neuritis had been noted in several cases reported in America.

Dr. SEQUEIRA said that recently he had had under his care at the London Hospital a man whose case puzzled him very much. He admitted the patient with the diagnosis "? pellagra." He had the skin conditions associated with that disease, and tremors, wasting, depression, and melancholia. He also had diarrhœa. The eruption improved so rapidly in hospital that there was nothing tangible to show at a meeting. Under arsenic, with rest in bed and ordinary feeding, he quickly put on weight, and he had now left the hospital, though he was being watched. He came from Essex, not far from London. (Since the meeting, Dr. Sequeira had admitted into his ward another case, a little girl. Dr. Box had seen the patient and confirms the diagnosis. In this case the symptoms are acute wasting, with the characteristic cutaneous phenomena.)

Dr. G. PERNET said his experience in connection with living cases of pellagra was small, but at the Rome International Dermatological Congress he had seen, mainly thanks to Dr. Sambon, a good many cases, especially at a pellagrous village not far from the capital. He considered that Dr. Graham Little was justified in regarding the present case as one of pellagra. Climatic and other national conditions must be taken into account. The present patient was white in comparison with Italians. The difficulty would be to diagnose early native cases here in England. He had a case at present under observation, in which pellagra was in the wards. The patient was too ill to be moved. He might add that the patient at one time had lived in the same district as the case recently under Dr. Box at St. Thomas's Hospital.

Dr. MACLEOD said that he had seen a number of cases of pellagra in the Campagna, near Rome, a few years ago, and it had been pointed out to him that pellagrins exhibited an abnormal sensibility to sun and that the slightest exposure was liable to determine an attack of dermatitis. He wished to know if this symptom had been observed in the present case. This fact had even been taken advantage of for diagnostic purposes in cases where the cutaneous symptoms were not well marked and the concomitant gastro-intestinal and nervous symptoms were vague. With regard to the fact that the skin appeared to have recovered completely in this case, he did not consider that that was in any way against pellagra, for that recovery was quite possible in mild attacks, but if the attacks were severe or frequently repeated, permanent changes in the texture of the skin and signs of chronic dermatitis were invariable. He was inclined to agree with Dr. Little in his diagnosis of pellagra.

Dr. WHITFIELD said he thought that the circumstances of the bite could not be used as an argument on both sides. They would be illogical to use the bite as an argument in favour of the diagnosis of pellagra and also to assume that the case was one of pellagra, and to use the bite as an argument in favour of Dr. Sambon's theory. Dr. Whitfield knew little about pellagra, but in discussing a doubtful case with Dr. Sambon he had received the impression that the erythema of pellagra did not pass away as quickly as it had done in this case.

Dr. GRAHAM LITTLE also showed a *case of trophœdema*. The patient was a young girl, aged 16, with persistent œdema and adiposity of the lower extremities from the level of the groin to the ankle. When first brought to the Department she had a general erythema of the skin of the leg, a symptom which recurs when she is up for any length of time, but recedes when she is kept in bed, as she has been for some weeks. The history given was interesting. She had fallen off a cliff, 30 ft. high, three years ago. She had fallen on her feet and was not rendered unconscious by the fall, but there was much bruising and pain in the legs. She was kept in bed for three months after the accident, and since then has constantly complained of pain, and aching in the legs, which have swelled whenever she is about. The symptoms of acute pain have increased, especially in the past three or four months, and she gets easily tired. The diagnosis at first made by the exhibitor was that of Milroy's disease or trophœdema; the likeness of the case to some cases reported under that title by Dr. Herbert French in the *Quarterly Journal of Medicine*, April, 1908, being the ground for making the diagnosis. Since her admission to the Hospital other investigations had suggested another possibility, which had chiefly been worked out by the Medical Registrar to the Hospital, Dr. Castellain, who was preparing a thesis for his Cambridge degree on disorders connected with the ductless glands, and to whom Dr. Little wished to express his best thanks. The second possibility suggested by these findings was that of a hypopituitarism, the supposition being that the hypophysis cerebri may have been injured by the fall, which appears to have been the starting-point of the symptoms. The present state of the patient will be described, and these alternative diagnoses then discussed. The figure, as far as the level of the hips, is that of a well-developed though not especially obese young woman, but abruptly from the hip the limbs are seen to be enormously swollen, the swelling consisting partly of fat and partly of a hard, brawny œdema extending from the hip to the ankle, and more marked in the lower part of this area. The foot does not appear swollen, the œdema ceasing at the ankle. The skin, over the leg especially, is coarse and rough, and at the lower third of the leg there are some permanently dilated capillaries; the whole leg, as has been said, becomes flushed when she has stood for some time. The measurements taken on admission after twenty-four hours in bed were as follows :—

May 23rd, 1914.

	In bed.	After being up for four hours.
Waist	24 in.	24 in.
Right thigh	25 ,,	24 ,,
Left thigh	25 ,,	24 ,,
Right calf	15 ,,	15¼ ,,
Left calf	15 ,,	15½ ,,
Right ankle	9½ ,,	9½ ,,
Left ankle	10 ,,	10 ,,
Right arm at biceps	10 ,,	10 ,,
Left arm at biceps	10 ,,	10 ,,
Neck over thyroid	12½ ,,	12½ ,,

These measurements were essentially the same at another trial a fortnight later.

With the exception of the pain in the legs and thighs, which is fairly continuous, she has no discomfort when lying in bed. She does not give the least impression of myxœdematous aspect, and there is no abnormality to be detected of thyroid, thymus, or lymph glands. She is said to sleep somewhat heavily, but is not dull or slow in speech or act. She has had occasional headache of frontal or retro-ocular type for five or six years. Menstruation commenced at the age of fourteen, but has always been scanty, lasting only two days, and coming at irregular intervals, usually of fourteen days. The hair on the scalp is not exuberant, but is quite normal and does not have the lifeless aspect of myxœdematous hair. The pubic and axillary hair are normal. There are no abnormal signs in abdomen or chest. The systolic blood-pressure, tested soon after admission, was 116, the pulse full and regular, the blood-vessels normal. The urine was normal in quality and quantity, and there was no polyuria or unusual thirst. Her weight on admission was 9 st. $4\frac{3}{4}$ lb.; after a month in bed, 8 st. $12\frac{1}{2}$ lb.

Family history: In French's cases (and the photographic figure of his first case is curiously like the present patient) there was a strong history of inheritance of the peculiar œdematous condition. There is no such history in the case now recorded. The father and mother and the two sisters are healthy, but a maternal aunt is said to be the subject of diabetes mellitus.

Ophthalmic examination: No diplopia or nystagmus, pupils react well. Disk and fundus normal. The fields on both sides are curiously restricted and variable, the latter quality suggestive of functional rather than pituitary causation. Refraction $\frac{6}{34}$ with + 9; $\frac{6}{5}$ with − 9 (both eyes the same).

The patient's sugar-toleration was tested on several occasions. She was able to assimilate 10 oz. of glucose, but the urine showed a slight reduction with 12 oz. of glucose.

A remarkably good skiagram was obtained of the skull, and on comparison of the appearances of a normal skull of much the same general size, as tested by superposing the plates one over the other, the sella turcica in the patient seemed undoubtedly enlarged.

The patient's temperature had been uniformly below 98° F. (usually 97·4° F.) up to the time at which a small dose of thyroid extract was given ($1\frac{1}{2}$ gr. bis die); during the four days that this has been tried the temperature within twenty-four hours of administration had risen and was maintained a degree above the normal level of her temperature while in the hospital in the past four weeks. The pulse rate, which averaged 68 in the same period, had also risen, as was to be expected, with administration of thyroid. The fact that thyroid extract can to some extent replace deficient pituitary secretion has been noted by Cushing, who has also experimentally raised subnormal temperatures by pituitary therapy. The experiment of thyroid administration is as yet of too short duration to warrant any deductions being made.

The symptoms may thus be summed up as follows: Occasional headache, frontal and retro-ocular. Menstruation scanty, irregular, and tending to be too frequent (fourteen days). Obesity specially obvious in, if not wholly confined to, the parts below the hip. Œdema (increased by standing up) chiefly in the lower part of the lower extremity and ceasing abruptly at joint levels, the ankle and hip (this was notable in French's cases). Average temperature, 97·4° F., raised after taking thyroid. Mental powers normal. No trace of myxœdematous slowness of reaction. Central nervous system normal. Normal blood-pressure and cardio-vascular system. Perimeter examinations show restricted fields, with considerable variations in fields taken at different times. No pigmentation or asthenia. No deficiency or hyperplasia of thyroid, thymus or lymph glands. Urine normal. Increased sugar tolerance. No polyuria or excessive thirst. No evidence of disordered function in lungs or alimentary system. Skiagrams of skull indicate presence of enlarged sella turcica, as compared with normal skull of approximately same size. History of initial trauma which may have damaged the hypophysis cerebri. A symptom, prominently present and difficult of explanation, is the frequent and considerable pain confined to the lower extremity.

Dr. SEQUEIRA said his colleague at the London Hospital, Dr. Cecil Wall, had a case of similar type. It followed a fracture of the base of the skull.

Dr. DOUGLAS HEATH asked whether any other member of the family was similarly affected. He had a case which he regarded as of the same nature in a young man, and one or two other members of the family were similarly affected. The disease came on at the fifteenth or sixteenth year in all, and there was swelling and marked coloration of the feet and legs in each member of the family attacked by the œdema.

Dr. SEMON asked whether the possibility of myxœdema had been considered in this case. In some respects it was suggestive of that; loss of hair and œdema, for instance. It was difficult to make sure of the size of the thyroid by palpation, and he would like to know if the therapeutic result of feeding with thyroid extract had been or would be tried in this case.

Dr. PERNET asked whether the Registrar referred to had suggested any relationship to adipositas cerebralis, which was a disease connected with the pituitary body. He knew of the condition known as familial trophœdema, which Meige and others had written about. In the case of adipositas cerebralis, he had been able to cut sections from the skin of the thigh. He had found not only marked adiposity, but the derm itself was thickened.* He had suggested dermo-adipositas cerebralis as more applicable.

Dr. GRAHAM LITTLE showed a *case of favus in a mouse* which had been caught in the room occupied by a child, shown at the Dermatological

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* Pernet. "A Note on Adipositas Cerebralis." *Trans. Amer. Derm. Assoc.*, Philad., 1909.

Section last February, with typical favus of the neck. The room was above a mews, and was occupied by the parents and three children, only one of whom, the eldest, had contracted the disease. There were kept in the room, in addition, a number of canaries which were bred by the father as a source of profit, and at first it seemed likely that the birds were responsible for the infection, especially as some of them were apparently in very poor feather. An examination of the plumage had proved negative, however, and as the *Achorion quinckeanum* in pure culture had been grown from the patch on the neck, it seemed more likely that mice might be the cause. This had now been proved to be the case. The mouse shown had three large patches of typical favus, on the mandible, head and back. The patch on the child's neck had shown very characteristic yellow scutula, and the culture had given the first indication that an unusual type of achorion was concerned.

Dr. Adamson said he had shown a similar case about six years ago of a baby with a recent patch of favus on the face, and a mouse with favus caught in the room in which the baby slept on the floor. Cultures of *Achorion quinckeanum* had been obtained from the lesions of the baby and of the mouse. Three kinds of favus had been cultivated from infected mice: *Achorion quinckeanum*, *Achorion schönleinii*, and *Achorion violaceum* (by Bruno Bloch). Not only the first of these had been found in mice in this country, and it was not uncommon for human beings to become infected by this type of mouse favus. He (the speaker) had exhibited three cases, and Dr. MacLeod and Dr. Bolam had shown others. The lesions in the human being were single, ringworm-like patches, with one or several scutulæ or even without scutula, and in no case reported had the hair been infected. There seemed, therefore, no danger of human beings becoming the subjects of favus of the ordinary type, such as those shown by Dr. Pernet, by infection from mice. This was a practical point, because otherwise it would seem hopeless to try and stamp out human favus by isolation and X-ray treatment, as was now being attempted in London with apparent success.

Dr. George Pernet showed *cases of favus in mother and child.* The child, a girl, aged two, was brought to the West London Hospital for crusting about the scalp, which had been going on for about one year. All sorts of applications had been used. The scalp was crusted generally over the greater part of its area; they were yellowish in colour, and favus was diagnosed. This was confirmed by microscopical examination, the scrapings revealing mycelia and spores in great quantity. In this child there were no typical scutula. It was found the mother was also suffering from a scalp affection, and on examination typical scutula were found in her, as well as sulphur-yellow crusting over the greater part of the scalp. The fungus was also demonstrated in her case. She is a woman, aged 33, and the disease had been present from the age of two—that is for thirty-one years. Both cases had been X-rayed since, and suitable local treatment ordered. The hair was coming out freely in both mother and child. No other members of the family were affected according to the mother's statement. Both mother and child were English, and came from west Middlesex, but the mother originally came from Bucks. Dr. Elworthy, pathologist to the West London Hospital, had cultures in train, and Dr. Pernet hoped to show them at the next meeting.

Dr. PERNET added that he would bring the cultures, but up to the present time they were not violet.

The PRESIDENT said that cases of favus in purely British subjects were much more common than was previously supposed. He could not account for the frequency of the disease in Scotland.

Dr. SEQUEIRA reminded members of the celebrated case which Sir Jonathan Hutchinson and Dr. Stephen Mackenzie showed at the Dermatological Society of London, a boy with favus of the tongue, a picture of which was in the Royal College of Surgeons' Museum. That case came from Camborne, Cornwall.

Dr. GEORGE PERNET showed a *case of bullous ichthyosis.* The patient, a young man, aged 18 years, a frame maker, first came under Dr. Pernet's observation last May, though he had been attending the West London Hospital from the age of 6, on and off, for blistering of skin. When seen a month ago, the lower part of the right forearm was red and desquamating, and on the back of the right hand there were the remains of a large bullous lesion with coarse separation of the epidermis. This had commenced as a blister the size of a penny on the lower part of the right forearm, and had rapidly extended downwards on to the back of the hand. Smaller bullæ were found scattered about the left forearm, and a small one on the left elbow. Over the lower part of the spine there were areas of pigmentation, and slight scaliness and atrophy about the sacrum and adjacent parts of the buttocks. There were raised, dirty looking, rough ichthyotic circular areas over the elbows; and on the front of both knees two or three large areas as above, with smaller thickened ichthyotic ones scattered about, with a tendency to spread down the legs. About the knees and legs there were purplish areas of old bullæ which had occurred two months previously. The fingers and nails were unaffected, and the patient repeatedly stated that the blistering was not the result of rubbing or injury, though to-day he had a blistering lesion in the thigh which had occurred after an injury. The palms were not affected, nor did they present the characteristics of ordinary ichthyosis. The skin of the face was normal.

The case did not fit in with Epidermolysis bullosa, but no doubt had connecting links with that condition. According to the patient, his father and his three brothers suffered from the same condition, but the contributor had not been able to see any of them. If he did he would report in a clinical note. He considered the case came into the category of what had been termed by Besnier, and also by Von Düring, "Ichthyose à poussées bulleuses" and also perhaps of what Brocq had described as "Erythrodermies congénitales ichthyosiques avec hyperépidermeótrophie *avec* bulles." He referred to a paper he had contributed on the subject of "Bullous Ichthyosis" in 1911,* where further details would be found. The ichthyosis in this case was not ordinary ichthyosis, but came into the category of nævus in the wider sense—viz. a congenital defect. In the young man shown the bullæ certainly appeared to arise spontaneously, and he considered they were not of the nature of ordinary pus infection lesions in origin, though secondary infection occurred rapidly. Any question of Dermatitis artefacta he had gone into, and considered that could be decidedly put out of court.

The PRESIDENT said he presumed that Dr. Pernet included hystricismus under the general term of ichthyosis, as the case exhibited was an example of the former rather than of the latter condition. He had never seen either associated with recurrent bullæ, which, he suggested, might be the results of pus infection.

Dr. ADAMSON said he thought the condition was a zoniform or segmental nævus, and was possibly associated with Epidermolysis bullosa; often two congenital defects went together. But against the diagnosis of epidermolysis was the fact that the patient did not appear to get the blisters on the fingers, and he asked whether the bullæ might not be impetiginous.

Dr. J. L. BUNCH showed a *case of Paget's disease of the nipple.* The patient, a woman, aged 51 years, first noticed some inflammation and redness around the left nipple fifteen months ago. This redness gradually extended and the nipple became sore with a slight watery discharge at times. When first seen a fortnight ago, there was an area of redness extending for $\frac{3}{4}$ in. around the nipple; the nipple itself was wanting in prominence and was definitely indurated, while the inflamed area was slightly scaly and showed some signs of infiltration. There was no enlargement of the axillary glands and the patient did not complain of any pain. Sections showed a downgrowth of cells of a squamous, as opposed to a columnar, type. A massive dose of X-rays was therefore administered with a very hard tube, with a filter of aluminium 1 mm. thick, and the redness and infiltration had since undoubtedly greatly diminished. A second similar dose of X-rays had been administered the day before the meeting and the only question which now arose was whether it was justifiable, in view of the undoubted benefit which had followed the first dose of X-rays, to continue this treatment. Or, since the patient refused operation, to substitute for X-rays treatment with large doses of radium.

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* Pernet. "Bullous Ichthyosis." *Brit. Journ. Derm.*, xxiii. p. 344.

Dr. J. L. BUNCH said the patient had obvious Paget's disease, which had existed twelve months, or longer. He brought the case forward in order to obtain the opinion of the Fellows as to whether his suggestion of amputation must not be urged very forcibly.

The PRESIDENT said that, presuming the patient's aversion to surgical ablation of the breast to be insuperable, he would suggest the use of massive doses of radium in tubes inserted deeply through the base of the growth. He had met with one apparently successful case.

Dr. SEQUEIRA said he had seen such disastrous results from the treatment of this condition by X-rays and radium, that he feared methods other than surgical even hastened the patient's end. In many of these cases he felt sure that duct carcinoma was already established. Dr. Whitfield had described a case of Mr. Lenthal Cheatle's in which, early in Paget's disease, there was a growth right into the substance of the breast. He considered that the correct treatment was early and complete removal. Sir Malcolm Morris's case of Paget's disease at the umbilicus did well, he believed, by X-ray treatment, but he had not seen another favourable case.

Dr. STOWERS said that he had recently seen a similar case treated with radium, but the result was most unsatisfactory. In spite of the natural reluctance of this patient to lose her breast, he was satisfied that her best chance of recovery depended upon immediate removal by operation. He exhibited a colour drawing of a case which he showed to Sir James Paget himself in 1882 which was typical in character, the patient eventually dying of malignant disease of the mediastinum. A special feature in this case was that the patient had previously been operated upon for scirrhus of her other breast.

Dr. HALDIN DAVIS said he had had a case of Paget's disease of the nipple, of which the appearance was similar to that in Dr. Stowers' drawing. It was treated with radium by Mr. Pinch, at the Radium Institute, and it was successful in so far that the patient died of another disease about nine months afterwards; but after death a lump was still present lying beneath, which he did not doubt was carcinomatous; she also had an enlarged axillary gland on the diseased side. Her death occurred in an institution from cerebral hæmorrhage, and as he did not learn of it until some time afterwards, he could not arrange a post-mortem examination. After that experience, he would not like to recommend non-surgical measures for anybody else.

Dr. NIXON (Bristol) did not think cases of Paget's disease of the nipple should be regarded as dermatological at all. He once was a near participant in a tragedy of the kind, and he had known of others. Most of these cases had a very malignant form of duct carcinoma, and the patients should be urged to have early excision done. If that were firmly declined, and only then, the palliative measures, X-rays or radium, should be suggested. The superficial improvement after the application of the agents only served to give the patient a feeling of false security, which constituted the greatest tragedy of all.

Dr. MACCORMAC said he agreed that two distinct types of carcinoma passed under the name Paget's disease: the squamous and the spheroidal celled; the result of the treatment depended on which form was being dealt with; in the latter the tendency to metastasis was marked, in the former, but slight, and it was only in the squamous variety one could expect much good from radium In reply to the President's question, he did not think Paget's disease often came into the cancer wards of the Middlesex Hospital, but he had no very definite knowledge on this point.

Post-script.—The breast was, on Dr. Bunch's advice, removed, together with the axillary glands, a few days after the meeting.

Dr. J. L. BUNCH also showed a *case of psoriasis associated with thrombosis of the inferior vena cava.* The patient, a male, aged 33 years, presented a number of lesions of typical psoriasis, which had been present, he stated, on and off in varying positions for a good many years. Certain superficial veins of the abdomen, groin and legs were very considerably dilated, mostly tortuous, and in places as large as a forefinger. The legs had to be kept bandaged as high as the knee; otherwise they swelled until their circumference measured 30 in., or more, and pitted very deeply on firm pressure. Patient had never had scarlatina or any other contagious fever, or, to his knowledge, any illness, except the psoriasis and the thrombosis of the inferior vena cava. The history he gave was that some three years ago, after over-exertion in running, he lost the use of his lower limbs and was admitted to one of the largest London hospitals. One of his legs was swollen. Some months afterwards the other leg began to swell, and soon afterwards the superficial veins of the abdomen and groin increased very considerably in size. At the present moment the chief inconvenience to the patient is caused by the necessity of keeping the legs bandaged and the discomfort of the swelling in the groin.

Dr. J. L. **Bunch** said so far as concerned the skin lesions it was a straightforward case of psoriasis. The patient had obvious thrombosis of the inferior vena cava, which apparently dated back three years, whereas the psoriasis preceded that by a considerable time. It had been suggested that there was some direct relation between the two diseases, but Dr. Bunch did not quite agree with this.

Dr. **Stowers** thought the conditions were merely coincidental.

Dr. J. M. H. **MacLeod** showed a *case of Lichen planus atrophicus*, in which the lesions were arranged in a reticulate fashion corresponding to the superficial venous network. The patient was a man, aged 22 years, occupied as a porter. He was somewhat fragile looking, highly neurotic, and suffered from headaches and giddiness, the exact cause of which was uncertain. There was no organic disease present, nor was there any history or evidence of syphilis or tuberculosis.

The reticulate eruption was situated on the inner surface of the left knee, and occupied an area about the size of the hand. It began about twelve months ago, and was noticed first as a number of small red spots, the exact character of which the patient did not observe. These kept on coming out, and coalescing in such a manner as to form a network enclosing areas of apparently healthy skin.

When the case was demonstrated there was a brownish network corresponding to the area of distribution of the superficial veins. Here and there small angular atrophic lesions of a brownish-purple tinge, and characteristic of Lichen planus atrophicus, were noted over it, but the greater part of it showed no evidence of atrophic lesions. The network enclosed islets of skin which appeared to be depigmented, as if the pigmentation had taken place in the network at the expense of that in the enclosed areas, in the same way as sometimes occurs in melanodermia. In front of the opposite knee there was a group of lesions of Lichen planus, but there was no corroborative lesions in the mucous membrane of the mouth.

The case was of interest owing to the difficulties it presented at first sight in diagnosis, and the relation which the Lichen planus lesions appeared to have to the venous network in determining their distribution.

The **President** remarked that in a corresponding position on the opposite side there were a few typical lesions of Lichen spinulosus, which strongly tended to confirm Dr. MacLeod's diagnosis.

Dr. ADAMSON considered it was Lichen plano-pilaris of Dr. Pringle; the pilaris on the other side helped this diagnosis. The interesting feature was the distribution. Dr. Colcott Fox had pointed out that Lichen planus had a curious network distribution, and he (Dr. Adamson) thought the network was produced by the fact that the lesions followed the network of Levido. This case seemed to confirm that view.

Dr. W. KNOWSLEY SIBLEY showed a *case of Adenoma sebaceum.* The patient is a brunette, aged 19 years, of normal mental and physical development, and has never had any serious illness. The father is living, but had to retire from business at the age of 50 on account of a nervous breakdown; the mother is living and well. The patient is the youngest of nine children, who are all strong and well. There is no family history of mental or physical disease.

The lesions, which are situated on the face, have been noticed since childhood. They remained fairly stationary for some years, but appeared to increase in size and numbers a year or two ago. The lesions are situated on both cheeks, sides and front of the nose, upper and lower lips and chin, the forehead being unaffected. They consist of small, raised papules, varying in size from a pin's head to a large sago grain. Some of them have a pale, semi-translucent rather waxy appearance; others are markedly red and vascular, being covered by telangiectases. The appearance of the lesions varies considerably from time to time. On flushing, they become much more prominent, and the patient states that they have often ruptured and bled with the slightest irritation. Some of them disappear on pressure, others remain constant. There is slight seborrhœa capitis, but no acne or comedones are present on the face, nor have any of the lesions been pustular. A fairly large group of flat, fibromatous, non-pigmented nævi are present in the middle of the lumbar region. Two other similar nævi are present over the lower left ribs. A small, pigmented nævus is present on the left cheek, and another on the abdomen, and several minute ones on the arms.

The lesions are not nearly as conspicuous as they were a short time ago, as I have treated several of the larger ones with electrolysis.

The first case in this country of this somewhat rare disease was shown by our President and described in the *British Journal of Dermatology* of 1890 under the name of "congenital Adenoma sebaceum." Krzysztalowicz describes four types of this disease: (1) Caspany's sebaceous tumour; (2) Pringle's sebaceous angiomatous and fibromatous mass; (3) Darier's angiomatous structure—vascular and warty nævi; and (4) Perry's sweat-gland, nævus type.

Dr. Sibley added that he considered his case was rather of the type described by Darier; there was more telangiectasis about it than where the sebaceous glands only were involved. When the patient flushed it was markedly characteristic, the lesions becoming very red and prominent.

Report on Section.—The section shows a slight thickening of the stratum corneum, the stratum granulosum is well marked, and there is also hypertrophy of the stratum papillæ. The sebaceous glands are very much enlarged, some of which contain small cysts, the blood-vessels are dilated, and there seems to be an increase of the fibrous tissue elements; there is also some cellular infiltration.

The PRESIDENT said the present case was a good example of one type of Adenoma sebaceum with which his name had been associated, although but little credit was really due to him. When he wrote his article on the subject in 1890 he obtained all his information from French sources, and he made no claim whatever to priority of observation. The original cases by Balzer and Ménétrier were published in the *Archives de Physiologie* for September, 1885, and these authors were responsible for the nomenclature which he had adopted. There now were a considerable number of cases on record in which there were no mental peculiarities or deficiencies. The patient exhibited had not got the commonest form of concomitant nævoid growth on the trunk and buttock; these were usually bigger, softer, more cushion-like and less nodular. He entirely concurred in the view that the condition was a sebaceous nævus, and he considered that the name "adenoma sebaceum" would soon cease to be in current use.

Dr. J. H. SEQUEIRA showed a *case of Leiomyoma.* The patient, a young woman, aged 32, came to the London Hospital complaining of a number of tumours on the forehead. They had been present as long as she could remember, and she gave the history that the lesions swelled up and were more painful in the winter. They have been giving her more trouble during the last few years. The family history was unimportant.

There was a collection of small, rounded, pink growths on the right-hand side of the forehead and on the right cheek, as low as the angle of the jaw, and extending forward under the right eye as far as the nose. The lesions on the forehead were of a pinkish-red colour, while those on the cheek and side of the face were nearly the same colour as the surrounding skin. The lesions were small rounded elevations beneath the skin, varying in size from a millet seed to a small pea. The patient gave a definite history of the lesions being painful and tender, especially during the colder months of the year. In the left side of the neck there were also groups of similar lesions to those on the side of the face, none of them exceeding a millet seed in size, and all of them (or nearly) of the same colour as the surrounding skin.

Histology: One of the tumours was removed for microscopical examination, and Dr. Turnbull furnished the following report: "Section of skin of forehead showing stratified squamous epithelium with some hair on surface. In the dermis immediately beneath the epithelium is a myomatous nodule consisting of many small bundles of unstriped muscle interlacing with fine bundles of collagen fibre. These are situated round a hair root, and the growth appears to arise from one of the arrector muscles."

An interesting point in the case was the unilateral arrangement of the growths, the area involved being accurately limited by the middle line of the forehead and nose. The history that the lesions had been noticed from the patient's childhood, together with the unilateral distribution, naturally suggested the possibility of nævoid origin. The only point which appeared to the exhibitor to be against this was the fact that the patient complained of pain. It is recognised that leiomyomata are painful, and that this feature distinguishes them from many other forms of skin tumours, but it is unusual to find congenital growths, even of the nerves themselves, painful. The number of lesions precluded any operative treatment, which would necessarily have been very extensive and would have involved practically one half of the forehead and the cheek.

The PRESIDENT remarked upon the marked involvement on the right as compared with the left side. He had never seen so abundant a growth of leiomyomata, the diagnosis of which was facilitated by the marked tenderness on pressure.

Dr. ADAMSON said the unilateral distribution was very interesting, and brought it into the category of zoniform nævi. Dr. Whitfield's case was unilateral in the distribution of the supra-orbital nerve, and Dr. Wallace Beatty's case unilateral on the face and symmetrically bilateral on the chest.

Dr. Macleod said he showed a case five years ago in a woman. It was on one side, extending from the middle of the cheek to the chin; there were paroxysms of pain in it in cold weather.

Dr. J. H. SEQUEIRA showed a *case of Diabetes insipidus with papular and nodular xanthomata.* Dr. Sequeira again showed a wasted, anæmic boy, aged 7 years, who had been before the Section at the December meeting.* The child then had an eruption of papules which suggested Lichen planus, but were found on microscopical examination to be granulomata. The question of "tuberculides" was discussed at the meeting. The eruption had increased in extent, and many of the lesions had a yellowish tinge. The boy was the subject of Diabetes insipidus. The condition raised so many points of interest that the exhibitor asked the Pathological Committee to report on the sections, and he proposed to publish the case *in extenso* in an early number of the *British Journal of Dermatology*.

The **President** adopted Dr. Sequeira's suggestion that the case be referred to the Pathological Committee, and this was agreed to. He believed it was a xanthoma, and recalled the fact that xanthoma of diabetic type had been observed in some patients who had not had diabetes.

Dr. R. J. **Colenso** showed a *case for diagnosis*. R. T—, aged 58 years; married twice; father of twelve children. For over twenty years signalman on District Railway. Born with pink wart (?) in front of the left ear (?) nævus. At the age of 20 a barber caught it with a comb, when it bled profusely. From being sessile it then became pedunculated and frequently bled when knocked. It remained "about the size of a shilling" until ten years ago, when it was again injured by a box, bleeding profusely. From that time it has grown more rapidly to its present dimensions, involving the pinna and external meatus of the ear. Its surface is corrugated and tracked, and bleeds on being touched or on laughing. A recent bleeding from the meatus relieved a partial deafness. The circumference of the growth has a peculiarly serrated appearance as if it had been stitched all round, but it has had no surgical or medical treatment worthy of mention. There is a small gland below the angle of the ramus on that side. The patient is otherwise well and has not suffered from ill-health. He is a hard-working and temperate man.

Dr. **Colenso** said the man, who was middle-aged, had not been under his care. The face lesion had resulted from injuries to a wart or nævus which he had had from birth, and grew rapidly after a final blow which took place many years ago.

Dr. **MacLeod** said it looked much like an epitheliomatous condition; a nævoid growth which had become locally malignant. One could not determine its exact nature without cutting sections of it. He considered that it would be a fair case for the application of massive doses of radium.

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* See *Proceedings*, p. 65.

Dr. Adamson said he had recently seen two similar cases, one in which the lesion was unbroken, the other in which it had broken down. The latter had been found by microscopical examination to be an epithelial growth. It got well after Dr. Haldin Davis had scraped it very thoroughly, and it had not recurred. These lesions he thought were neither rodent ulcers nor a malignant epitheliomata. It would be difficult to treat it surgically, because of the situation. He hoped a photograph of the case would be published, as it seemed to him to be a new affection—possibly a sebaceous gland epithelioma.

Dr. Nixon recommended eradicating the tumour more deeply than could be hoped for by scraping, and doing a plastic skin-graft on the area.

Dr. Sibley said he thought it might possibly be of sebaceous origin; he had seen long-standing sebaceous glands breaking down in this way after an injury. This lesion was more circular than would be expected in a nævus. He would apply a full dose of X-rays, and see the result, before attempting anything surgical.

Dr. Douglas Heath said he had a case like this, which perforated through the ear, growing in an epitheliomatous or papillomatous way. He scraped it, and it got well, though the man lost the affected part of his ear. The gland in this case might be septic. In his own case an enlarged gland subsided after the scraping.

The President suggested that a biopsy be made for microscopic examination, the treatment being based on its results.

Dr. Gray thought that previous speakers had not paid much attention to the glandular enlargement present in this case. The gland felt to him like a malignant one. He thought it was of the utmost importance in these cases to do a complete removal of glands, as recurrence usually took place there: the primary growth could be eradicated by excision, cauterisation, or even X-rays or radium.

Dr. Sequeira said he would curette and apply X-rays. Diathermy should also be thought of. He was now treating a case of extensive squamous-celled carcinoma, occurring on lupus, very much in the same site, by this measure.

Dr. A. Whitfield showed a *case of Schamberg's disease*. The patient was a boy, aged 11 years, and was, as far as could be ascertained, organically sound. "Some long time ago" the present condition had made its appearance. It was certainly of many months' duration, and possibly some years. It had, at all events, not altered at all during the ten weeks that Dr. Whitfield had had him under observation. The abnormality consisted in a curious reddish-brown discoloration of both arms from the wrist to about an inch above the elbow, and the legs from the malleoli to the junction of the lower and middle thirds of the thighs.

On close examination the brown colour was found to be made up of a fine network of brown macules and telangiectatic points which could not be emptied by pressure. Above the left knee there was an arrangement of telangiectases in the form of an oval, the vessels directing their branches away from the circumference and leaving an evenly brown-pigmented centre.

The diagnoses thought of were:

(1) A fading purpura, but, on watching the case, this was easily excluded.

(2) Lichen planus. The presence of the well-marked telangiectasis was against this, and there were no papules anywhere.

(3) Angioma serpiginosum and Schamberg's disease, which the exhibitor regarded as varieties of the same thing, and which he considered to be the correct diagnosis.

CURRENT LITERATURE.

A CASE OF FOLLICLIS OR PAPALO-NECROTIC TUBERCULOSIS OF THE SKIN MISTAKEN CLINICALLY FOR LICHEN RUBER PLANUS. Kaufmann-Wolf. (*Archiv f. Derm. u. Syph.*, May, 1914, cxx, No. 1.)

The lesion was produced apparently by an electrode which had been strapped on to the patient's left wrist for some unknown purpose by a dentist. Immediately after the application the wrist had been very red and painful, and a fortnight later the spots had appeared. On clinical examination they presented the appearance of typical Lichen ruber planus. They were situated on the dorsum of the left forearm in its lower third, and consisted of isolated pin-head size lesions, of firm consistence and light pink colour, and each presented a central depression, though nothing is said about Wickham's striæ, nor is the fact of a dorsal instead of the common flexural situation commented upon.

Two papules were excised, and the paraffin sections examined by Prof. G. Arndt, who reported that nothing resembling the histological picture of Lichen planus was visible, but there was no doubt that the condition was one of papulo-necrotic tuberculide or folliclis, in that the main features were groups of cellular infiltration with central necrosis. Neither giant-cells nor tubercle bacilli were demonstrable. The case is somewhat remarkable in that an otherwise healthy woman, aged 48 years, reacted to a comparatively mild stimulus, with the production of a papulo-necrotic tuberculide. Two other cases of a similar diagnostic interest, taken from the French literature, are cited.

H. C. S.

THE RATIONAL TREATMENT OF TUBERCULOSIS CUTIS, WITH SPECIAL REFERENCE TO THE USE OF LECUTYL. Strauss and Miedreich. (*Archiv. f. Derm. u. Syph.*, May, 1914, cxx, No. 1.)

In a short preface to an interesting article the authors summarise the more modern therapeutics of the tuberculous affections of the skin.

It is not likely that English authorities will find themselves in complete agreement with the more pessimistic of their objections to our now very extensive armamentarium. They state, for instance, that pyrogallic acid has no specific or elective affinity in the destruction of lupus nodules, that it is a very painful method, and that its penetrating power leaves much to be desired. They urge, too, that it tends to destroy healthy as well as tuberculous tissue. This contention cannot be supported by facts. A 10 per cent. pyrogallic acid ointment will have an ulcerative effect on lupus, but none such on psoriasis, for instance. The authors claim for lecutyl a specific non-toxic action. They maintain that its action is purely bactericidal, and elective to such an extent, that inunctions with the ointment, in view of the reaction locally produced, are of great diagnostic value. In only one other skin affection, according to them, is such a reaction noted—viz. epithelioma—and they believe that from this point of view diascopic examination for nodules takes a very second place, in that doubtful pigment spots and erythematous points in an apparently cured patch are made to reveal their true nature in a few hours.

They combine the local inunction of an ointment with intramuscular or, preferably, intravenous injections of the lecutyl twice weekly, in ·5 to 5 c.c. of a solution containing 0·1 of copper per c.c.

The results, according to photographic evidence, appear to be good, but no claim for freedom of recurrence is given, and in the cases described several relapses occurred.

H. C. S.

BOOKS RECEIVED.

Progressive Medicine. Edited by HOBART AMORY HARE, M.D., assisted by LEIGHTON F. APPLEMAN, M.D. Published by LEA & FEBIGER. Philadelphia and New York. Pp. 460. Price $6.00 p.a.

Revista Dermatologica. Published by *La Semana Medica.* Imp. de Obras de E. SPINELLI. Buenos Ayres, 1914. Pp. 257.

Physiologie Normale et Pathologique des Reins. By L. AMHARD. Edited by F. GILTLER, Paris. Pp. 329. Price 15.00 *fr.*

Notions Pratiques d'Électrotherapie Appliquée à l'Urologie. By Dr. DENIS COURTADE. Edited by F. GILTLER, Paris. Pp. 212. Price 10.00 *fr.*

Manuel de Cystoscopie. By E. PAPIN. Edited by F. GILTLER, Paris. Pp. 326. Price 15.00 *fr.*

The Phillipine Journal of Science. Edited by ALVIN J. COX, M.A. Ph.D. Section B, Tropical Medicine. Published by BUREAU OF SCIENCE, Manila. Pp. 133. Price $3.00.

Lehrbuch der Dermatologie. By Dr. K. DOHI. Volumes 1 and 2, with numerous Plates and Illustrations in Text. Published by ASAKAYA, Tokyo, 1914.

The Newer Physiology in Surgical and General Practice. (Third Edition). By A. RENDLE SHORT. Published by JOHN WRIGHT & SONS. Ltd., Bristol. 1914. Pp. 256. Price 5*s.* net.

THE BRITISH
JOURNAL OF DERMATOLOGY.
SEPTEMBER, 1914.

THE *RÔLE* PLAYED BY A LYMPHOCYTE IN INFLAMMATION AND ITS PROBABLE RELATIONSHIP TO SARCOMA.*

By J. E. R. McDONAGH, F.R.C.S.

(*Continued from p.* 312).

Mycosis Fungoides.

As everyone is aware, Mycosis fungoides is regarded by some observers as a form of sarcoma, and by others as a form of leucæmia, or rather, pseudoleucæmia. The latest opinion, which emanates from Paltauf, is that Mycosis fungoides lesions are made up of pure granulation tissue, and have no relationship to either sarcoma or leucæmia; in other words, that it is a disease *sui generis.* One of the reasons for classifying the disease among the sarcomata was the fact that lesions similar to those occurring in the skin were also to be found in the internal organs.

Paltauf and v. Zumbusch (6) have recently described two cases of Mycosis fungoides in which lesions were found post-mortem in the internal viscera.

In the one case there was an infiltration of the pleura, nodules in the lungs, and infiltration with ulceration of the walls of the stomach. The coloured plates illustrating the article depict the lesions of the viscera as yellow nodules with a marked red inflammatory circumference, and they do not suggest metastases of a primary malignant growth.

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* This article is related to a similar one dealing with the *rôle* played by an epithelial cell in inflammation and its probable relationship to carcinoma, which is published in the *Archiv. f. Derm. u. Syph.*, Bd. cxx, H. i, S. 289.

Microscopically, these lesions were made up of granulation tissue, which was especially rich in plasma-cells, resembling the cutaneous lesions. In both necrosis was to be met with.

Unfortunately, no detailed description of the morphology of the plasma cells is given. In the other case, nodules were to be found in the lungs, liver and spleen, which macroscopically and microscopically were identical with the cutaneous lesions, having the characteristics of an inflammatory, rather than a malignant growth.

On the other hand, cases appear to have been described by Kaposi, Mühsam and others, in which the lesions of the internal viscera were sharply circumscribed, non-inflammatory, in short, having all the phenomena of secondary malignant growths. The cases were described some time ago, and the histology of these so-called metastatic lesions was not adequately worked out. It is possible that some of the cases described, in which secondary malignant growths have been found, have been cases in which a primary malignant growth existed independently of the Mycosis fungoides.

Adamson recently had a case of Mycosis fungoides in a woman, and it was marked by generalised pigmentation, in which, post-mortem, a secondary growth was found in the liver. The secondary growth was sharply circumscribed, non-inflammatory, about the size of a filbert, and it was deeply pigmented in parts. Histologically, it was clearly a metastatic melanotic malignant epithelioma. Some years previously, the left eye had been removed, possibly for a growth, but no further details on this point are at present obtainable. In some of the cutaneous mycosis lesions removed post-mortem, metastatic malignant epitheliomatous deposits are to be seen.

The reason for classifying Mycosis fungoides among the leucæmias is due to the fact, that the statement has crept into text-books that the disease is sometimes associated with a blood-count, suggestive of lymphatic leucæmia.

It is extremely doubtful whether the blood-count is often altered in Mycosis fungoides, except beyond an increase of eosinophiles in some cases, and polymorphonuclear leucocytes in others, which are accompanied by necroses. Personally, I have not come across a case with a pronounced mononuclear leucocytosis, but a small increase in the large mononuclears may sometimes be met with.

As to whether Mycosis fungoides should be classed with the pseudoleucæmias—depends upon what one recognises as pseudoleucæmia. The best known example of a pseudoleucæmic condition is what we in England call Hodgkin's disease. On the Continent, the same condition usually goes by the name of lymphogranulomatosis. Many observers hold that Mycosis fungoides and lymphogranulomatosis are one and the same condition, affecting different parts of the body.

On the other hand, other observers maintain that they have nothing in common, although the reasons given for the statement are far from convincing. Their chief reason for separating the two conditions is, that lymphogranulomatosis is preceded by urticarial and prurigo-like lesions of the skin, with occasionally a widespread erythrodermia, while Mycosis fungoides is usually preceded by an eczema or a psoriasis.

As far as my limited experience goes, in cases of so-called pseudoleucæmia with skin lesions resembling urticaria and prurigo, the skin lesions either appear some time after one or more sets of lymphatic glands have become enlarged, or they appear before there is any enlargement of the palpable lymphatic glands. The point I wish to bring out is, not whether the skin lesions precede or succeed lymphatic gland enlargement, but that in the majority of the cases the skin lesions do not alter. Some of the prurigo papules may increase in size, but it seems doubtful whether they ever give rise to such nodules as are seen in Mycosis fungoides.

Some of these cases may run an extremely rapid course, death ensuing in a few weeks, but more often the disease lasts over many years.

Whether the course is rapid or slow, the blood-count usually remains the same. There is generally a diminution of lymphocytes an increase of eosinophiles often to 30 per cent., and an increase of polymorphonuclears, the last being dependent upon the secondary infection which is liable to result from the continued scratching. On the other hand, the blood-count may remain normal to the end. I have only seen one case in which the blood-count became later like that met with in lymphatic leucæmia.

The cases exhibiting erythrodermia may be divided into two classes: those in which the erythrodermia is widespread and often sufficient to produce total alopecia, and those in which the erythrodermia is localised to one or more patches. In both cases the erythrodermia may disappear before any tumour formation is seen, leaving either no trace behind it, or, more often, a marked pigmentation, or the tumour formation, especially in the localised cases, may appear in the centre of the patches of erythrodermia.

The tumours may ulcerate, a process which usually results in their spontaneous cure—not in a cure of the disease, because fresh patches of erythrodermia with ultimate tumour formation will appear elsewhere. I have had one singular case under my care, an exact replica of which I have never seen described. A man, aged 47 years, having had syphilis over twenty years before, sought advice for a skin lesion he had had for the last three years.

The patient had a rash which extended over the upper half of the left side of the chest, the left shoulder, and down the left arm to about the lower third. The rash was typical of Dermatitis atrophicans, the skin rolled and looked thin, like cigarette paper, and the vessels were clearly discernible underneath. The periphery of the lesion simulated exactly the localised patches of erythrodermia, which precede the condition called Lymphogranulomatosis cutis. The itching was intense, and the skin trouble was undoubtedly spreading. On the arm, where the skin had not become atrophic, was a very slowly spreading ulcer, which simulated closely a rodent ulcer. All treatment was unavailing. The patient was not clear as to whether the ulcer had been preceded by a swelling in the skin or not.

The tumours which form on the patches of erythrodermia are clinically indistinguishable from those which succeed an eczematous or psoriatic condition, or from those which arise independently of any preceding dermatitis (Mycosis d'emblée).

Therefore, clinically it would appear that there is no difference between Mycosis fungoides and Lymphogranulomatosis cutis. Broadly speaking, when a histological examination of any of the afore-mentioned cases is made, one may say that scarcely any two are alike. They all have a feature in common, viz., that the predominating cell of the infiltration is a lymphocyte. The varied microscopic pictures obtained are accounted for by the presence and almost total absence of plasma-cells in some cases, upon the presence or absence of the forerunners of lymphocytes and upon the variation in the number of polymorphonuclear leucocytes, mast-cells and eosinophiles. In some cases the tumour may be made up almost entirely of plasma-cells; they may be normal, the protoplasm may be broken up in the cells of which the nucleus remains unchanged (Fig. 8); the protoplasm may be granular (Fig. 9), in the cells of which the nucleus is either increased in size or there is more than one, and the nucleoli are also increased both in size and numerically (Fig. 12), or the protoplasm may have practically vanished, also the nucleus, the nucleolus only being left behind, which divides and subdivides, or, in other words, behaves pseudo-parasitically (Fig. 10), a phenomenon I described as occurring in the epithelial cells of malignant epitheliomata. In other cases there are no plasma-cells at all, the infiltration being made up of small and large lymphocytes. In such cases it is usual to find many endothelial cells with embryo lymphocytes in their protoplasm. In other such cases there may be numerous large cells containing one or several nuclei in their feebly-staining protoplasm. Sternberg (7) first called attention to these cells, and held them for characteristic of lymphogranulomatosis. These large cells are mostly round, and contain, as just stated, one nucleus or more. The nucleus or nuclei may be centrally or peripherally situated, they vary in shape, contain little chromatic substance, but one or more deeply-staining nucleoli.

The greatest difference of opinion prevails as to the origin of these cells. Personally, I think they are the endothelial cells of the local lymph-vessels, which have been unable to generate lymphocytes, and that they are identical with the large cells depicted in the section of a lymphatic gland from the neck of a rat which died of trypanosomiasis (Fig. 7). In all cases there is a greater or less proliferation of the fixed connective-tissue cells, which occurs whenever there is an inflammatory infiltration of the skin, and is therefore in no wise specific.

In other cases (Fig. 11), embryonic lymphocytes predominate which behave in a manner that has never hitherto been described. The parent endothelial cells of these embryonic lymphocytes are, owing to having degenerated, difficult to see. These embryonic lymphocytes vary in size and shape, but all stain homogenously and very deeply with methyl green, polychrome methylene blue, etc. These darkly staining masses which consist of nuclein, which has not yet become differentiated into chromatin threads and dots, is sometimes seen to be lying in a mass of protoplasm which takes the pyronin stain. Either very little protoplasm is seen or a considerable amount, and in the latter instance one or more strongly pyroninophile bodies are generally visible, one of which lies invariably at one pole of the nucleus. These pyroninophile bodies are presumably nucleoli. What has just been stated is well depicted in Fig. 11, and one cannot help noticing the close similarity between the various stages met with in the lymphocyte and the epithelial cell, when pseudo-parasitism occurs.

The section is taken from a case of Mycosis fungoides and the interpretation I would put upon it, is as follows:

The attacking force hits the lymphocytes just after they have been expelled from the endothelial cells, therefore the resistance will be shown by the embryonic lymphocytes and the endothelial cells.

In this case although numerous endothelial cells are to be seen in the section, the brunt of the resistance is being borne by the young lymphocytes; a point in favour of regarding the case as being nearer the malignant than the innocent end of the chain.

The embryo lymphocytes divide and subdivide amitotically, which accounts for the great difference in size of the nuclein masses; others develop a large area of protoplasm in their abortive attempt to form plasma cells; in some of the latter, and in some of the non-protoplasmic embryo lymphocytes, the nucleolus is beginning to behave as a pseudo-parasite.

Some of the larger young lymphocytes have broken up into several small nuclein masses possibly with the hope of forming several distinct lymphocytes, and in these cells the nucleolus is also active.

The most interesting point about this case, which was under Dr. Adamson's care, is that when the case was first seen the lesions were rapidly getting better and microscopically were typical plasmomata. When the condition recurred and ended fatally, practically no plasma cells at all were to be found in the sections. The case had in short become more malignant. Not only may the histology of a recurrent mycosis lesion differ from that of one of the primary lesions, but variations may be met with in the primary lesions and the recurrent lesions themselves.

The histological characters of the recurrent lesions are more akin to those to be met with in sarcomata than in pure inflammatory lesions, and since, as it seems to me that death ensues quicker after X-rays than would otherwise have been the case, the opinion is suggested that X-rays stimulates the tendency which the cells already possess of developing malignant features.

The number of polymorphonuclears present is regulated by the amount of secondary infection, and by the fact whether necrosis is going to supervene or not. The number of mast-cells present depends upon the amount of pigmentation. The number of eosinophiles present vary somewhat, but their common appearance, often in very large numbers, suggests a specificity of some kind.

Great as the variation in the histological changes at first sight appears to be, on a deeper insight the difference becomes more apparent than real. The lymphocyte is the cell attacked, but it depends upon the degree of the attacking force as to whether the response will come in the form of a plasma-cell, a lymphocyte, an endothelial cell forming lymphocytes, or an endothelial cell incapable of forming lymphocytes. The cause of the condition in the first instance is one which causes inflammation analogous to either syphilis or to tubercle, in that the lymphocyte, and not the polymorphonuclear leucocyte, responds.

Should the attack not be too severe, the lymphocytes will form plasma-cells, by which process their protective capacity is increased. Should the attack still persist, or should it become more vigorous while a plasmoma exists, the plasma-cells constituting it will increase their resistance, and this they can do by breaking up their protoplasm, which increases the area over which the ferment action is spread; or the protoplasm fails, when the nucleus will divide and subdivide, with the hope of forming more; and, lastly, the nucleolus will do its best by behaving in the same manner. Should the attack be primarily severer before the lymphocytes have had time to form plasma-cells, the increased resistance which may be required will be thrown upon their forerunners or the endothelial cells, which will do their utmost to turn out the greatest quantity of lymphocytes possible. Should the resistance required be greater still, the endothelial cells will attempt to divide and subdivide, so that each resulting endothelial cell could form lymphocytes independently; hence the appearance in some cases of multi-nucleated large cells. Therefore, clinically and histologically, Lymphodermia perniciosa, Lymphogranulomatosis cutis, and Mycosis fungoides are, in my opinion, names for different stages of the same condition.

Histological changes such as I have just described, and which are depicted in Figs. 7, 8, 9, 10, 11, 12, are also to be met with in the lymphatic glands removed from cases with cutaneous lesions, and in those removed from cases of so-called Hodgkin's disease. Therefore it would appear that the disease may start either primarily in the glands or in the skin.

The presence or absence of itching, upon which observers lay so much stress, as serving to distinguish lymphogranulomatosis from Mycosis fungoides, must surely be a slender reed to lean upon, since in both conditions there may, or may not, be pruritus. Pruritus is, after all, more an idiosyncrasy of the patient than of the disease, and no one would hesitate to diagnose a typical case of Lichen planus as such simply because there was no itching. The glandular enlargement is said to be more marked in cases of lymphogranulomatosis than in cases of Mycosis fungoides. First, the glandular enlargement, as described clinically, will only affect those glands which can be felt. I mention this, since the post-mortem examination has occasionally revealed an enormous enlargement of only the glands lying deep in the chest and the abdomen. Secondly, a ratio exists between the enlargement and rate of increase in size of the lymphatic glands, and the severity of the attacking force; that is to say, that in those cases in which the glandular enlargement is greatest one would meet with the greatest number of non-lymphocytic containing endothelial cells. The very rare condition, Mycotic erythrodermia, which has been described by Besnier, Vidal, Hallopeau, and others, must be included in the group under discussion.

According to the authors above-mentioned the disease is characterised by a universal redness of the skin, with tumour formation; the itching is intense; there is marked lymphatic gland enlargement, with accompanying swelling of the liver and spleen. In most cases, after two or three years the disease terminates fatally. Arndt (8), in a recent article, attempts to draw a sharp distinction between Lymphogranulomatis and Mycosis fungoides, and he would even assign to the French mycotic erythrodermia a distinct position. The case of lymphogranulomatosis described by Arndt had remittent fever and progressive cachexia, which are not usual accompanying signs of Mycosis fungoides, as the author points out. Histologically, according to Arndt, the differential diagnosis rests upon the number of the large cells which are to be found containing one or more nuclei; if there are many, the case is one of lymphogranulomatosis; if few, or if they are absent, then the case is one of Mycosis fungoides.

Until the causes of Mycosis fungoides and lymphogranulomatosis have been found, we shall not be in a position to state with certainty whether they are distinct diseases, or only different phases of the same disease.

Concerning the ætiology of Mycosis fungoides, nothing very definite is known, but in some cases of lymphogranulomatosis, acid-fast, gram-positive bacilli have been found (Arndt). Morphologically, the bacilli resemble tubercle bacilli, but whether the lesion is a tuberculous one, or whether tubercle has supervened, or whether the acid-fast bacilli belong to another species, are problems which remain still to be solved.

Cases of Hodgkin's disease have been described, in which acid-fast bacilli have been found, and some observers have also found what they term, the coccoid form of the tubercle bacillus, which is demonstrated by Much's method of prolonged staining with gentian violet.

Owing to the discovery of acid-fast bacilli in both Hodgkin's disease and lymphogranulomatosis, many observers hold that the two diseases are identical, but that one form mainly affects the glands, while the other form chiefly affects the skin; also that both conditions have a close connection with tuberculosis. Ziegler (9) and many others, maintain that Hodgkin's disease and lymphogranulomatosis are similar conditions, but hold that Mycosis fungoides should also be included therewith.

Owing to the similar clinical picture, and to the fact that no two cases of Hodgkin's disease and lymphogranulomatosis or Mycosis fungoides are histologically the same, for some cases of the latter merge into the former, in other words, that connecting links are frequently to be found; since, moreover, the ætiology of both diseases is unknown, in my opinion it would be preferable to class them as links in a chain, to which I have proposed the name of lymphocytoma.

The Mycosis fungoides would come nearer to the inflammatory end of the chain, while lymphogranulomatosis would approximate to the malignant end. Owing to the fact that most of these conditions primarily begin as inflammatory lesions, the cells constituting them not differing from those met in ordinary inflammation, it is impossible to diagnose a premycotic condition from a histological examination only.

It is interesting to inquire a little further into the ætiology of this intermediary group. The only satisfactory evidence so far forthcoming, is that acid-fast bacilli have been found, which suggests a casual relationship to tuberculosis. Tuberculous lesions, at any rate in the skin, are mostly made up of lymphocytes or plasma cells. In other words, the lymphocyte is the cell which the host relies upon to protect itself against the tubercle bacillus. It is also the cell which is called forth in syphilitic lesions, therefore the possibility has occurred to me; that syphilis is primarily responsible for some of the cases falling into this intermediary group.

I have been surprised at the number of the cases which have given a positive Wassermann's reaction. This in itself means nothing, but when it is found, as it has been my experience, that these cases which give a positive Wassermann's reaction improve under salvarsan, while those which give a negative do not improve and are often made worse, a relationship between syphilis and the intermediary aleucæmic lymphocytomata does suggest itself. A word or two about the Wassermann reaction is necessary, since it appears that some cases give a positive reaction, although there is no history of syphilis. In those cases which give a positive reaction the reaction is usually very markedly positive and out of all proportion to the clinical condition. In fact no active specific lesions can be found, and often years have elapsed since the patient last had any; therefore a positive Wassermann's reaction is neither a proof that there is necessarily an active syphilitic lesion, nor is the strength of it a guide to the severity of the lesion.

Recently I have had four patients whose cases make still further suggestive the possibility aforementioned.

Case 1.—A man, aged 39 years, contracted syphilis fifteen years ago, for which he was treated with mercury internally for three years. Five years after the infection, diffuse swellings appeared in the neck, which mainly affected the salivary glands and the lymphatic glands around. In spite of the most vigorous anti-syphilitic treatment, the glands remained unmoved. During the ten years before I saw him, the patient had frequent attacks of œdema over various parts of the body which not infrequently commenced either in or around the lachrymal glands, which spread to the neck necessitating frequent tracheotomy, and finally a permanent tracheotomy tube had to be worn. Around the enlarged glands the œdema was chronic. At frequent intervals, patient developed swellings in his skin, and they ultimately burst, leaving small holes which were extremely deep, not at all like gummata. Another complaint was an almost incessant tinnitus. None of these symptoms was influenced in the least by mercurial inunctions or injections or iodides administered internally. The Wassermann's reaction was one of the strongest I had ever come across. The blood-count showed a diminution of lymphocytes, a slight increase of the large mononuclears, and an increase of eosinophile leucocytes up to 21 per cent. All the tuberculin tests were negative. A piece of lymphatic gland was removed for microscopic examination, and revealed the following points:

Capsule thickened; follicles, on the whole, well maintained, where other follicles should have been, was a cellular infiltration made up of alternating lymphocytes and plasma cells, but characterised by some endothelial cells with young lymphocytes in their protoplasm and also a number of endothelial cells whose nuclei were undergoing division like Sternberg's multinucleated giant cells. Throughout the cellular infiltration were several eosinophile cells.

Such a histological picture is certainly not that of syphilis, but one of what would have been called lymphogranulomatosis or Hodgkin's disease.

When treated with salvarsan, an ulcerated nodule on the chest healed at once, the glands went down to almost their normal size, the attacks of œdema became very much less frequent, and the tinnitus was diminished. This was doubtless a case of mixed Hodgkin's and Miculicz's disease of syphilitic origin with Mycosis fungoides as cutaneous lesions.

Case 2.—A boy, aged 21 years, contracted syphilis November, 1913. I saw him first in January, 1914, when he showed the remains of a chancre on his penis and a papular rash, but he was covered from head to foot with what appeared to be a diffuse pigmented erythrodermia, upon which were innumerable urticarial and prurigo-like lesions, some of which had pus in them owing to a secondary infection caused by the intense itching accompanying the eruption.

It was difficult to distinguish the syphilitic papules from the rest.

The glandular enlargement was very marked, especially the two inguinal sets, and they certainly were more enlarged than one would expect to see in an early syphilitic infection.

Thinking the syphilis might have given rise to an intermediary form of the aleucæmic lymphocytomata of the lymphatic glands, with a secondary prurigo-like eruption, I did a blood-count with the following striking result :

White blood corpuscles	26,000 per c.mm.
Red ,, ,,	4,960,000 ,,
Hæmoglobin	90 per cent.
Colour index	0·9 ,,

Differential count of whites :

	Per cent.	Per cmm.
Polymorphonuclears	65	16,900
Lymphocytes	12	3120
Large mononuclears	2·2	572
Eosinophiles	20·0	5200
Basophiles	0·8	208

This shows a polymorphonuclear leucocytosis with a marked eosinophilia, not a blood-count one would expect to get in the early secondary stage of syphilis.

After seven weekly injections of neo-salvarsan and a few intramuscular injections of grey oil, the blood-count was done again. In the meantime the syphilitic symptoms had vanished, the prurigo-like eruption had improved, but by no means gone, and some of the individual lesions had increased somewhat in size. The glandular enlargement, though not so marked, still persisted.

White blood corpuscles	12,000 per c.mm.
Red ,, ,,	5,680,000 ,,
Hæmoglobin	95 per cent.
Colour index	0·8 ,,

Differential count of whites :

	Per cent.	Per c.mm.
Polymorphonuclears	60	7200
Lymphocytes	23	2760
Large mononuclears	4	480
Eosinophiles	11·4	1368
Basophiles	1·6	192

The above count shows a slight polymorphonuclear leucocytosis, with still a marked eosinophilia.

The Wassermann's reaction was still markedly positive. Unfortunately I could not remove a gland for microscopic examination, but the outbreak of the prurigo-like eruption, accompanied by a great enlargement of the lymphatic glands early in the stage of generalisation of the syphilitic virus, together with a blood-count, as above, and the way the whole picture altered under specific treatment, strongly suggests not only that the prurigo-like eruption was a symptom of an aleucæmic lymphocytoma, but also that syphilis was the cause thereof.

Cases 3 and 4 were men with strong syphilitic histories, who developed enormous glandular enlargements in the mediastinum. In both the Wassermann's reaction was positive, and in both the diagnosis of aneurysm was made, although all the clinical signs pointed against such a diagnosis, and both were markedly improved by salvarsan.

Summary.

Growths in which the lymphocyte predominates, should receive the name of lymphocytomata. They may primarily affect the skin, other viscera, lymphatic glands, spleen and bone-marrow, and they may either run a leucæmic or an aleucæmic course. The aleucæmic forms may be either innocent or malignant.

Skin.

(*a*) *Leucæmic lymphocytomata.*—True leucæmic nodules, or even diffuse swellings may appear in the skin. The disease may remain aleucæmic for a time, but ultimately it ends in true lymphatic leucæmia.

(*b*) *Aleucæmic lymphocytomata.*—These may be either innocent or malignant. The innocent lymphocytomata or plasmomata, as they are usually called, since the lymphocytes have mostly developed into plasma cells, are caused by various infective agents, such as syphilis, tubercle, etc.

The malignant lymphocytomata are primary sarcomata arising from lymphocytes, plasma cells, and endothelial cells. Between the innocent and malignant aleucæmic lymphocytomata of the skin, various links in the lymphocytic portion of the mesoblastic chain are to be met with. Clinically, the conditions are very much alike, and histologically, no hard and fast line can be drawn between them. They comprise Mycosis fungoides, Lymphodermia perniciosa, which is probably the same condition as the French mycotic erythrodermia, and Lymphogranulomatosis cutis.

The Mycosis fungoides is nearest the inflammatory end of the innocent link, while Lymphogranulomatosis cutis is nearest the sarcoma end of the malignant link. Between the two every kind of variation is to be met with.

The intermediate stages can be understood better if the histological changes are studied, and no name is given to any one stage.

The lymphocyte has its origin in endothelial cells, and when adult, it gives rise to plasma cells. The cause of the plasmoma may be of a more irritating nature than that met with commonly, in syphilitic and tuberculous lesions for instance. To protect the host, the plasma cell can break up its protoplasma, cause its nucleus to divide and subdivide, cause a similar change to take place in the nucleolus, and finally the nucleolus may take upon itself the whole responsibility of resisting the attack, when it behaves like a parasitic body and simulates those pseudo-parasitic bodies to be met with in malignant epitheliomata, and these I demonstrated as arising from the nucleoli of epithelial cells.

The lymphocyte itself may go through the same changes, so far as its nucleus and nucleolus are concerned. The lymphocyte's progenitor, the endothelial cell, may do likewise. Therefore the difference in these various skin lesions is one of degree, depending upon the kind of attack, the kind of resistance offered, and the cell first attacked. It will now be seen that there is a true primarily innocent and a primarily malignant aleucæmic cutaneous lymphocytoma, and that between these two end links are several connecting links, which instead of going by the names Mycosis fungoides, Lymphodermia perniciosa and Lymphogranulomatosis cutis, should be called intermediary aleucæmic cutaneous lymphocytomata, affecting chiefly this or that transformation of the plasma cell, lymphocyte, and endothelial cell.

My own opinion is that any poison, be it bacillary or chemical, which is attacked by lymphocytes, such as is the case in syphilis and tuberculosis, provided the call for protection is sufficiently concentrated and prolonged, any lymphocytoma may result. As to which one results will depend upon the situation of the call, the concentration of the call, etc., so that if it starts in the skin it will be a form of what was called Mycosis fungoides; if it begins in the salivary glands it will be a form of Miculicz's disease; and if it commences in the lymphatic glands, it will be a form of what was called Hodgkin's disease. The concentration or severity of the call will be gauged by that stage in the life history of the lymphocyte which predominates. According to which stage is affected the degree of malignancy or innocency can be determined.

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DESCRIPTION OF PLATES.

Fig. 1.—Shows an endothelial cell in a fixed section from a lymphatic gland. × 1500. The developing lymphocytes in the granoplasm of the cell are clearly discernible.

Fig. 2.—Is a later stage of the preceding, in which most of the lymphocytes to be formed, have been formed and left the cell. The endothelial cell in consequence has begun to degenerate. × 1500.

Fig. 3.—An aminoplasma cell from a case of ulcus molle serpiginosum. × 800.

Fig. 4.—Another form of aminoplasma cell from a case of ulcus mole serpiginosum (*vide* right and left). × 800.

Fig. 5.—Various forms of aminoplasma cells to be met with in *in vivo* staining with borax methylene blue, from any plasmomatous lesion.

Fig. 6.—Polypeptide plasma cells. Sheaf and rectangular prism forms. Section from a syphilitic lymphatic gland, stained with pyronin and methyl green.

Fig. 7.—Section of a lymphatic gland from the neck of a rat which had died of trypanosomiasis. Stained with pyronin and methyl green. Note the dilated vessel with endothelial cells in the lumen. Similar endothelial cells are also to be seen in the tissue around. Some of the endothelial cells are multinucleated. in the nucleus of others two or more nucleoli are to be seen, in a few the nucleus has vanished altogether, and in all. the chromatin stains badly, and there is no attempt at the formation of lymphocytes. Many of the plasma cells will be seen to have two or more nuclei. Here and there in the section, amorphous pyroninophile masses are visible which have originated from the protoplasm of some of the plasma cells.

Fig. 8.—Section of a lymphatic gland stained with pyronin and methyl green from a case of intermediary lymphatic aleucæmic lymphocytoma. The patient had a wide-spread prurigo-like exanthem. The blood count showed a slight diminution of lymphocytes, and a slight increase of polymorphonuclear leucocytes and eosinophiles. The characteristic feature of the section is the manner in which the protoplasm of the plasma cells has broken up into pyroninophile amorphous masses.

Fig. 9.—This section is from a case of intermediary aleucæmic cutaneous lymphocytoma. near the malignant end of the chain. The patient was a man, aged 50 years, who had patches of erythrodermia, in the centre of which were several nodules, some of which had ulcerated. The nodules and ulcer after a time disappeared spontaneously. Twenty-five years previously he had had syphilis. and at time of examination the Wassermann reaction was strongly positive. His mother died, aged 78 years. and his father, aged 82 years, was still alive. Patient was steadily losing weight, and all the hair on the body was rapidly coming off. Occasionally the itching was very severe. Glandular enlargement was very marked. The blood examination showed an eosinophilia and a slight increase of the large mononuclears. Histologically, the points to be noticed are, the granulation and breaking away of the protoplasm of the plasma cells, an increase in the size and of the nuclei of the plasma cells, a diminution in staining properties of their chromatin, and an increase in size and number of the nucleoli.

Fig. 10.—Section of a lymphatic gland from a rapid, fatally terminating case of intermediary lymphatic aleucæmic lymphocytoma. The patient had an acute universal prurigo-like exanthem. The points to be noted are, that the protoplasm of some of the plasma cells has broken up, the nuclei of most of the plasma cells have increased in size, some have divided and many contain more than one nucleolus, and some of the nuclei of the plasma cells and lymphocytes have been

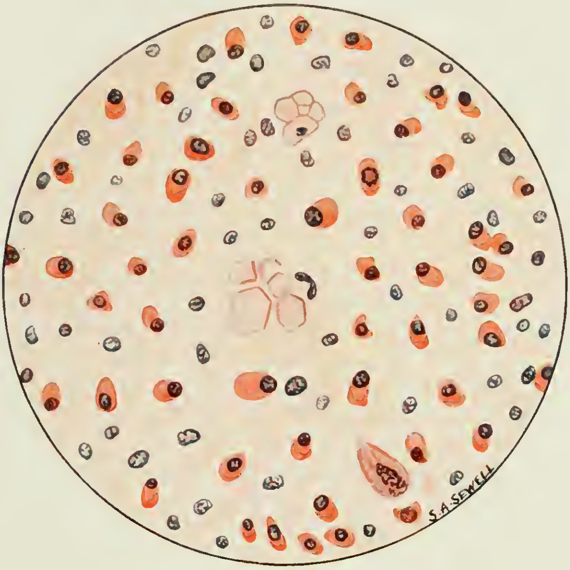


Fig. 6.

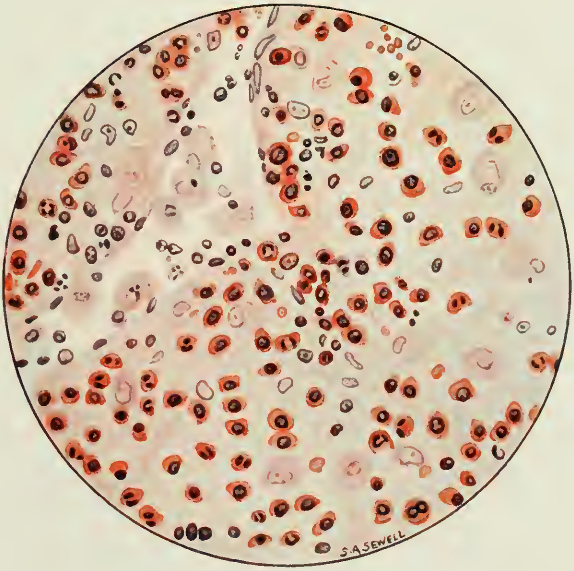
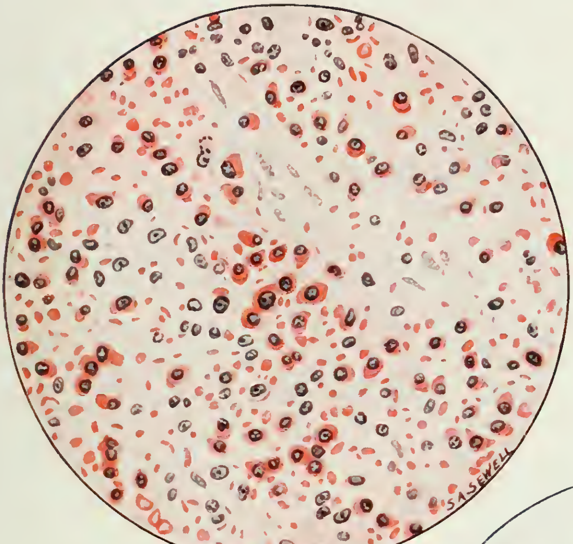


Fig. 7.

To Illustrate Mr. J. E. R. McDonagh's Article.



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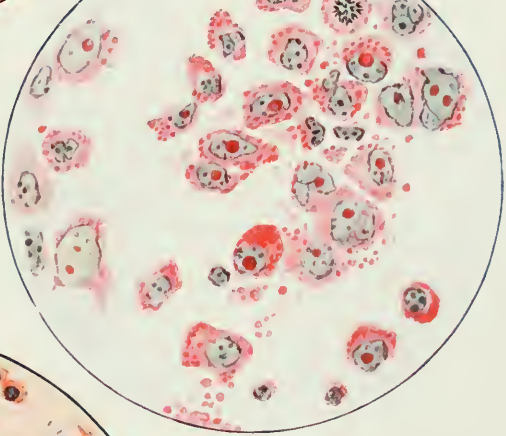

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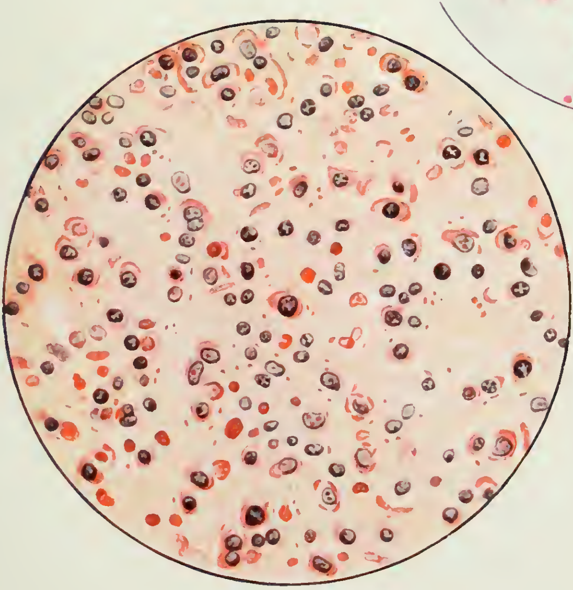

Fig 10.

To Illustrate Mr. J. E. R. McDonagh's Article.

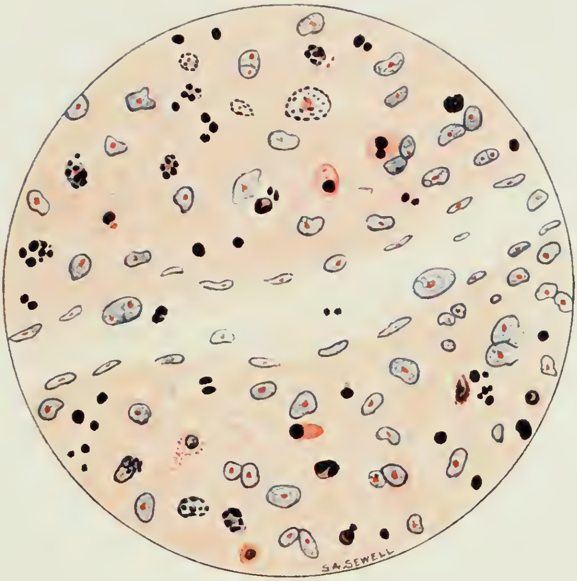

Fig. 11.

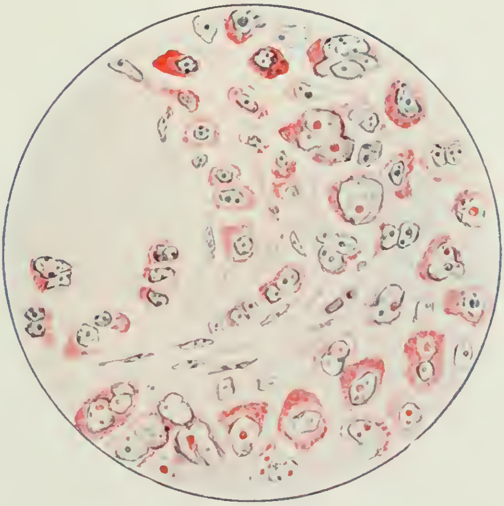

Fig. 12.

To Illustrate Mr. J. E. R. McDonagh's Article.

displaced by a strongly pyroninophile body—the nucleolus, which has increased tremendously in size. Elsewhere in the section, nucleoli are to be seen forming cells of their own and dividing, behaving like the pseudoparasites of malignant epithelioma.

Fig. 11.—A section from a recurrent case of intermediary cutaneous aleucæmic lymphocytoma after X-rays. Before treatment the lesions were histologically true plasmomata. Now several endothelial cells are to be seen, some of which have, and are giving rise to lymphocytes. The embryo lymphocytes instead of forming adult lymphocytes and plasma cells, are undergoing multiple division, and some of them have formed a large area of protoplasm. In a few of these the nucleolus is active.

Fig. 12.—Is a section from a sarcomatous ulcer which arose from plasma cells. The points to be noted are, the granulation and disappearance of the protoplasm of the plasma or sarcoma cells, the large size and number of the nuclei, the feeble staining properties of the chromatin, and the increase in size and number of the nucleoli.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held July 16th, 1914, Dr. J. J. Pringle, President of the Section, in the Chair.

Valedictory Address.

The President addressed a few informal remarks to the Section, referring to the successful work of the past Session, and thanking the various officers who had retired for their valuable services. He made special reference to the zeal and energy displayed by the Senior Secretary, Dr. J. M. H. Macleod, whose work on behalf of the Section had been so eminently and uniformly successful. On his own behalf he thanked the members of the Section for their hearty co-operation in all the changes of procedure which had been introduced during the Session and for the unvarying consideration and courtesy shown to himself.

Dr. E. G. Graham Little showed the following cases:—Case of *multiple symmetrical painful fatty tumours with pigmentation.* Mrs. P—, aged 47, born in South Africa, and lived all her life there.

Family history: Mother died of cancer. Father died of a throat affection which was regarded as either cancer or tubercle. Sister had a tumour excised from her back, nature unknown.

Personal history: The patient had been married eighteen years, and at the time of marriage had a single tumour on the buttock. She has had three children born alive, of which one lived three days, one seven months, and one died a few hours after birth. Confinements have always been difficult, but children have been born at full time and were fat children. After the last confinement ten years ago, four days after delivery she appears to have had an embolism following upon white leg, and became aphasic and remained so for several months. Her memory was also entirely destroyed for a time, but now has largely recovered. She cannot, however, spell any long words correctly, though she had been normal in this respect. During the last few years, and more especially latterly, she has developed very numerous tumours on the arms chiefly, symmetrical, painful, and becoming blue on handling. She has put on fat generally, having increased her weight 20 lb. in two years. She has very severe and painful cramps which waken her and render her sleep broken. She has painful symptoms of sensation of stoppage of the heart. Menstruation irregular and infrequent; ? menopause. Distribution of tumours: Face, one; right arm, fourteen; left arm, thirteen; right hip, one; right thigh, one; left thigh, seven; left buttock, two. Melanodermic patches of recent development on both sides of the neck.

The husband states that the patient has changed character and become irritable.

One of the tumours was excised in the last twenty-four hours and microscopically appears to be a lobulated fatty tumour, situated in the hypoderm (specimen exhibited).

Since the patient was shown, some further investigations have been conducted, and the following facts have been established: The temperature is usually subnormal, ranging round the level of 97° F. The sugar tolerance has been tested. The patient was given on an empty stomach 9 oz. of glucose, and the urine was examined before and every hour after the administration of the dose. In the six samples taken after the dose and while the patient fasted there was no sugar passed. Her sugar tolerance may therefore be said to be raised.

A chart of the perimetric fields was taken by Mr. Bishop Harman, whom the exhibitor has to thank for permission to publish them. Mr. Harman accompanied these with the following note: The fields do not correspond with the usual type of pituitary trouble, but they are characteristic of a hemiplegic lesion on the left side. It would appear that she had "a clot of blood on the brain" ten years ago, and that she then had speech aphasia and paresis of the right side. Her husband is positive of this, although the wife was inclined to think that the paresis was the other side. The fields, of which I send you a copy, do not absolutely exclude pituitary trouble, and I have seen similar ones in undoubted tumour cases. The fact that the colour fields agree with the white fields is, however, rather indicative of something that has been done for some time, and not something that is in the process of alteration at the moment. The disks show no definite change. There is nothing to lead one to suspect any optic nerve atrophy; that is in favour of the cortical origin of the lesion.

Dr. Harrison Orton examined the patient under X-rays and reports as follows: The outlines of the sella turcica are well defined. It is perhaps rather deeper than the average with a tendency to approximation of the clinoid processes which is said, I believe, to be common in epileptics. I should not like to say, however, that these appearances are not merely individual anatomical peculiarities; there are evidently wide variations within normal limits. I could find nothing abnormal in the region of the larynx; there is some calcification in the thyroid cartilage, but I find this quite commonly in normal individuals.

Dr. **Pernet** said he had seen cases of the kind. Pains were associated with them, and these pains worried the patients a good deal.

The **President** (Dr. J. J. Pringle) agreed with the exhibitor in regarding the case as one of Adiposis dolorosa; the involvement of the buttocks and shoulders, as well as the obviously considerable amount of pain, supported that diagnosis. The association of pigmentation seemed to suggest some important ideas as to a common origin.

Dr. F. **Parkes Weber** questioned whether the case should be called one of Adiposis dolorosa; he considered it merely to be a case of multiple painful fatty tumours. There might, however, be some ætiological relationship with Adiposis dolorosa, as both conditions might be associated with disturbance of internal glandular secretions.

Dr. **Whitfield** said he did not know whether all cases of Adiposis dolorosa had calcified thyroids, though many had. It would be easy to ascertain that by means of X-rays. Some years ago he had a case at King's College Hospital, though less marked, and following treatment with thyroid gland many of them disappeared; he did not know whether it was *post hoc* or *propter hoc*.

(2) *Case of acute Lupus erythematosus.*—The patient is resident in Pretoria, where he has lived since the war. He is engaged in a wholesale mercantile house, and has not mixed with the natives except that he has two native servants. At the end of February of this year he noted a small red patch at the tip of the nose. He was seen some time later by Dr. Mackenzie, who practises as a specialist in skin-diseases in Johannesburg and who diagnosed Lupus erythematosus. Some five to seven sittings of X-rays were given and also some applications of freezing by ether snow, and the skin seemed to improve, especially on the hands, which had become affected later than the face. When he started on his voyage home the condition of the face was much less advanced than on his arrival; the hot voyage seems to have influenced it adversely, although he took pains to avoid bright sunlight. He has always been extremely constipated and has taken medicine daily for this, but has not succeeded in keeping the bowels open. He notes that the face is always worse when the constipation is not relieved. His urine at the first examination showed much indicanuria. After two Plombières douches and free purging this was no longer present. Scrapings were taken from the raised advancing edge of the disease behind the ears and stained for micro-organisms, but with negative result. The pigmentation came on only after the application of X-rays. Scrapings from the pigmented areas show no fungus. The face has remained swollen for several months, but has never discharged.

He was regarded by Dr. Davis, a well-known surgeon in Johannesburg, as probably suffering from a chronic appendicitis, but the patient refused operation.

He has been seen by the exhibitor's colleague, Mr. Warren Low, who reports that he can find no evidence of appendicitis. Since the patient arrived in England he had improved greatly on treatment by large doses of quinine, and measures to secure a daily evacuation of the bowel. Much of the initial redness has died away.

Description of the condition when first seen: The whole face was much swollen, intensely red over the greater part of it, but on each cheek near the malar eminences, on the forehead and on the neck, the bright red surface was invaded by a dark brown discoloration which seemed so superficial that it gave the appearance of being painted on, and was in fact so like the superficial pigmentation of Pityriasis versicolor that scales were taken with the express object of excluding this possibility. But the patient's own explanation of the discoloration is that his skin is naturally very dark and the *red* colour is the new phenomenon which has displaced the natural skin. Behind the ears on both sides there was a sharply defined infiltrated raised livid red area with a very urticarial look, but obviously not urticarial, as it persisted unchanged for weeks. This area remained swollen after the swelling of the rest of the face had diminished materially. The breath was fœtid and the tongue foul. On the dorsum of the hands on both sides there were patches of whitened atrophic skin with some blotchy redness interspersed in the white. These parts had been vigorously treated with carbon dioxide freezing and might be very well explained, as indeed the patient did explain them, as resulting from freezing surfaces previously red and constituting the most characteristic patches of Lupus erythematosus.

The PRESIDENT had seen the case in consultation with Dr. Little three weeks previously and had concurred in his diagnosis, although the condition of the face was extremely difficult to pronounce upon owing to the treatments which had been adopted. He had had little or no hesitation, however, in diagnosing the disease on the back of the hands as Erythematous lupus, and this opinion was borne out by the very curious festooned spreading outline of the raised erythematous patch on the neck.

Dr. PERNET asked whether Dr. Little did not think there was an underlying melano-leucoderma; he did not consider the pigmentation and the white areas on the eyebrows were due to X-rays. The man said he had frequently cycled in the sun in South Africa.

Dr. ADAMSON said that he had not the opportunity of seeing the case in the earlier erythematous stage described by Dr. Little and the President. and he would, from the present appearances, have diagnosed the condition as leucoderma with scleroderma—two affections which were sometimes associated. He regarded the white areas on the face as leucoderma and the dark patches as normal skin bronzed by exposure to the sun. The white areas on the hands were thickened as could be felt on pinching them up between the fingers, and these he thought were patches of scleroderma. He suggested that the acute redness of the non-leucodermic patches, which was seen in February, was due to exposure to the sun of areas unprotected by the normal pigment.

(3) *Case of Schamberg's disease: "A Progressive Pigmentary Disease of the Skin."**—The patient is aged 56 years. He has never lived out of Great Britain. He enjoys good general health. He has had no venereal disease; no varicose veins. His family history is unimportant; the only skin detail is that his father is said to suffer

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* Schamberg, *Brit. Journ. Derm.*, 1901.

from psoriasis. The condition began twenty-five to thirty years ago with the patch on the left leg. On the right leg, where the patch is actually now larger than on the left, the disease only showed itself about eight or ten years ago. Within the last few months the small isolated punctate lesions in the neighbourhood of the larger patches began to appear. There is no lesion elsewhere than on the legs. The affected areas are moderately itchy, but show no other abnormal sensations.

Present state: Below the knee on each leg on the anterior surface there are large patches, 3 by 5 in. in area, of cayenne-pepper-like punctate deposits of pigment, so closely aggregated as to produce plaques of pigmentation, forming curiously angular shapes with sharply linear and sometimes serpiginous outlines. The general effect is that of a buff-coloured tattooing of the skin. There is in addition to the pigmentation a slight degree of scaling.

The case closely resembles another case of this rare disease shown by the exhibitor at the Dermatological Society of London in June, 1902, a water-colour drawing of which, together with sections of the skin, were exhibited.

Dr. Douglas Heath said he had recently had under his care one marked instance of this disease in an old lady, aged 73 years. She had no varicose veins, and rather prided herself on the whiteness of her skin. There was a triangular-shaped area of involvement beneath each knee, such as one would see in a psoriasis patch. Several of the circinate lesions seemed to have coalesced to form a large patch. There were circular lesions with pigmented areas round the margin. There were also small isolated spots lying beyond the main areas. The disease extended to the umbilical level and was very profuse, and included both buttocks. It had been noticed only five months, and there had been no itching or any eczema or other dermatosis. The disease was probably more common than it was usually thought to be; it might often be mistaken for varicose pigmentation.

The President thought the condition was essentially one of capillary dilatation with a very small amount of hæmorrhage. He had certainly seen a considerable number of cases, although seldom consulted expressly for it. One of the severest cases he had observed was in a lady, aged about fifty, with slight albuminuria and a very high arterial tension.

(4) *Case of Pityriasis rosea with some unusual characters.*—The patient was a girl, aged 12 years, and presented a completely typical eruption of Pityriasis rosea on the trunk, which had shown itself about two weeks ago. There were three features which rendered the case remarkable. The pioneer patch had appeared on the face,

on the left cheek, three clear days before any other lesions; it had been mistaken for Tinea circinata. The face was much occupied at the present time by the eruption, and the larger—*i.e.* the initial patch—could still be identified. The presence of the pioneer patch on the face was most unusual. Secondly, there were numerous typical patches on the dorsum of the hands and feet, although the eruption was scanty as a whole and did not occur on the intervening area between these parts and the main incidence of the rash, so that it was not a case of these unusual positions being affected, because the eruption was generally copious. In his recent review of the disease the exhibitor had found very few instances recorded of the hands and feet being involved. Thirdly, there were a number of vesicles, the size of a large pea, on the upper and inner border of the instep and on the soles of both feet, interspersed with typical rose-pink slightly scaly patches of Pityriasis rosea. This admixture served to differentiate the condition from an ordinary dysidrosis which it otherwise strongly resembled, except that the distribution was also unlike that of dysidrosis.

The exhibitor had found only one instance recorded of vesication in Pityriasis rosea, a case shown by Dr. Colcott Fox at the Dermatological Society of London in 1906.* It had been suggested that vesication was not infrequent in Pityriasis rosea of childhood. The exhibitor could only say that he had been in continuous charge of one of the largest children's out-patient skin departments in London, that of the Shadwell Hospital, for the past eighteen years, and he had never seen it. Dr. Colcott Fox, who had also had a very long and special experience of children's skin-diseases, had never seen it, as he expressly states in his comment on his case recorded above. Dr. MacLeod and Dr. Gore, who have also large special children's departments, assured the exhibitor that they had not met with it.

Dr. ADAMSON said he had seen several cases of Pityriasis rosea with vesication about the hands. All these cases had been in children, in whom it frequently happened that the lesions of Pityriasis rosea spread beyond the usual "vest-area" limits on to the limbs and face. He was convinced that the vesicles on the hands were part of the Pityriasis rosea eruption, and not a concurrent dysidrosis. Microscopic vesicles were seen in sections of Pityriasis rosea of the trunk, and those on the hands were probably an exaggeration of that condition.

The PRESIDENT said that on two occasions he had observed herald patches on the face. In one case, which he thought was unique, he had seen the primary patch occur on the glans penis, and it puzzled him considerably. It was not until three or four days afterwards that the diagnosis became clear by the appearance of characteristic lesions on the trunk and limbs. Some cases with marked vesication had been reported in America, and he had seen a good number himself which showed distinct vesication clinically, though not, as far as he could remember, on hands or feet. But he saw comparatively few young children, while Dr. Adamson saw a great many.

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* *Brit. Journ. Derm.*, 1906, xviii, p. 281.

(5) *Case of Sclerema neonatorum in an infant.*—This was an infant, now aged 9 weeks, in whom the disease had commenced on the day after birth with "lumps" on the back. The child had been born cyanosed, and was subjected to artificial respiration.

Family history.—The parents were both healthy and there was no evidence of syphilis in either. The mother had had a miscarriage with her first pregnancy, but not since. Two children had died in childhood from causes which were not ascertainable, but the other children were healthy.

Present state.—The whole surface of the body was of a livid bluish-red colour. The indurated swellings characteristic of the disease occupied the whole of the back, the shoulders, the neck and upper arms. Isolated lumps, about 1½ in. in diameter, in distinction to the diffuse indurated sheet-like infiltrations in the sites named above, were present in the cheeks and on the buttocks. Indurated diffuse swellings were also found on the anterior surfaces of the forearms as far as the wrists, which were free, and also around the mammæ and on the anterior and upper chest-wall. The child had been admitted to the East London Hospital for Children when aged 5 weeks, and three days after admission the induration had extended down the back and on the thighs and calf. The weight was taken on various dates as detailed below.

On June 24th, the day after admission, it was 9 lb. 5 oz.; on June 29th, 9 lb. 13 oz.; on July 5th, 10 lb. 4 oz.; on July 9th, 10 lb. 5 oz.; on July 16th, 9 lb. 12 oz.

The induration became gradually softer by July 3rd. The child was throughout apparently very little disturbed by the condition, took food well, and was good-tempered and happy. The motions were quite normal. The temperature the day after admission rose to 101° F., but fell within a few hours to normal, and was raised to 101° F. again only on one occasion, on July 9th, from causes undetermined.

The only treatment adopted was to place the child in cotton-lint spread with antiphlogiston, but the heat of this application seemed to irritate, and it was omitted after ten days' trial, after which no treatment except keeping the child warmly covered. The indurated masses were everywhere softening, and the prospects of recovery were now excellent.

Dr. PERNET asked if there was any evidence of congenital syphilis.

Dr. W. KNOWSLEY SIBLEY showed a *case for diagnosis ; (?) Xanthoma multiplex.* The patient was sent to him by Dr. F. Copeland, and is a boy, aged 16 years, who is stated to have had an eruption on the body since he was aged 8 years, and which has become much worse the last three years. Both parents, two brothers and four sisters, are living and well.

The patient at the present time is anæmic and looks ill. The temperature at night varies from 100° to 101° F., and is usually subnormal in the morning. His voice is hoarse, and he has a slight cough with expectoration. No physical signs can be detected in the chest, nor are tubercle bacilli present in the sputum. A von Pirquet test was found to be negative, so also was the Wassermann reaction. Considerable œdema of the legs has been present for two or three weeks. The urine is very thick, highly coloured, and contains albumin, a few pus, and red and white blood-cells and staphylococci, also coarse granular casts. No tubercle bacilli were to be detected, nor is sugar or bile present. There is a general enlargement of the lymphatic glands, and a large one in the left groin broke down some two years ago and discharged for about a fortnight. Differential leucocyte count : Polymorphonuclear cells, 65 per cent. ; lymphocytes, 30 per cent. ; eosinophiles, 2 per cent.

An extensive papular eruption is present over the greater part of the body and limbs. Most of the lesions are raised, oval or round, and very firm to the touch, being of a distinct tumour formation. The colour of the papules varies from rose to red, many having a distinct semi-translucent yellowish-reddish waxy appearance.

The rash is present almost everywhere except over the sternum in front and the interscapular regions behind the scalp and is only slightly present on the legs. It is most abundant on the back of the neck, where the skin is generally thickened and infiltrated and lies in folds. The arms and forearms are covered with the papules and generally infiltrated. The penis and scrotum are also extensively involved. The cheeks themselves are free from the eruption, but papules, rather paler in colour than those over the body and limbs, are present on the forehead, eyelids, ears, bridge and sides of the nose, extending more or less in a line down the outer angles of the mouth on to the chin in the form of a triangle, with its base on the chin, the upper lip being unaffected. The palms and soles are considerably thickened, and the hair-follicles over the dorsum of the fingers are prominent. No eruption is present in the axillæ or popliteal spaces. The teeth are good and the nails are unaffected, so also are the mucous membranes.

The whole condition has recently been complicated by a rather severe attack of impetigo, presumably produced by scratching, the lesions being often very irritable.

Report of the section, taken from the group of lesions situated on the back of the neck: The layers of the epidermis are practically normal, the chief changes being noticed in the dermis, which appears to be a connective-tissue new growth, of an inflammatory nature. Here and there are to be seen some deposit of yellowish pigment granules, and some large cells which have a defined membrane and show a deposit of fat granules with several nuclei lying between the cells. The blood-vessels are dilated.

The PRESIDENT suggested that the case, along with that shown by Dr. Sequeira at the last meeting, should be submitted to the Pathological Committee. It recalled to his mind a somewhat similar one shown by Dr. MacCormac at a recent meeting of the Section, and then pronounced to be a Prurigo senilis.

Dr. WHITFIELD said it looked like a chronic urticarial condition; it had, more or less, the pathological anatomy of prurigo; one member when looking at it thought it was Hebra's prurigo. It had appeared at eight years of age, which was not remarkably late for prurigo to begin. Both to the eye and the finger the lesions seemed to be mainly œdematous; and in the section under the microscope the main feature seemed to be œdema, the collections of cells there he regarded chiefly as polymorphs, not fibroblastic cells; but further staining would be required in order to be certain; the section showed enormous vascular dilatation. It was not easy to say whether they were venous or lymphatic capillaries, they were simply endothelial-lined spaces. He regarded the lesion as a chronic inflammatory urticaria. There was no relationship to xanthoma. He did not think the cells in the section were plasma-cells.

Dr. ADAMSON said that he was unable to make a diagnosis in this case, but that the absence of intense itching seemed to negative the diagnosis of prurigo or of lymphadenoma. The patient sat quite calmly without attempting to scratch, and there were no scratch marks, and this was quite unlike the behaviour or appearance of a patient with an intensely itchy eruption.

Dr. **Stowers** said that he was so much impressed with the general outline of this case when he first saw it that he at once associated it with the cases of genuine prurigo which were collected by the late Mr. Morrant Baker and demonstrated at the old Dermatological Society of London and elsewhere. When the lad denied itching—which was always so prominent a symptom—probably he misunderstood the question put to him, for now it was admitted. Dr. Stowers agreed with Dr. Whitfield's remarks and considered the case specially suitable for investigation and report by the Pathological Committee.

Dr. W. **Knowsley Sibley** also showed a case of *Lupus vulgaris*. The patient is a single woman, aged 41 years, with severe old-standing Lupus vulgaris affecting nearly the whole of the mucous membrane of the mouth, pharynx and nostrils, with a patch on the left cheek and general infiltration of both upper and lower lips with granulomatous deposit. Her father died from heart disease, and her mother from senile decay. She was one of thirteen children, nine of whom died young; all the survivors are healthy and well. She is stated to have had scarlet fever when she was aged 7 years, with a severe sore throat, which has remained ulcerated ever since. From the throat the disease spread to the interior of the nostrils, and eventually appeared at the tip of the nose, the whole of which has ulcerated away and the anterior nares have been completely occluded for some years. A few years ago the disease appeared on the outside of the left cheek; this had been healed for about a year after the applications of acetone carbon dioxide snow.

The recent treatment has been by nascent iodine, both internally and locally, to the inside of the mouth. The patient takes 20 grains of iodide of potassium in a tumblerful of water every morning directly after breakfast, followed four, six, and eight hours afterwards by an ounce of chlorine water in a tumblerful of home-made lemonade. Locally a powder consisting of equal parts of iodide of potassium and chalk is blown by means of an insufflator on to the areas of tubercular ulceration in the mouth, and the mouth is immediately rinsed out with chlorine water, this being held in the mouth as long as possible. Under this treatment there has been a considerable improvement in the amount of infiltration, especially of the upper lip, which before it was begun some three weeks ago was almost rigid and all movements were very painful.

Incidentally Dr. Sibley mentioned that he had found this local nascent iodine treatment most efficacious for the clearing up of Pyorrhœa alveolaris, even when very severe, and from the observations he had so far made he would not be surprised if it turned out to be an absolute cure for that disease.

The chlorine water is prepared after Dr. Curle's method, as follows: 1 dr. of powdered chlorate of potash is placed in a 24 oz. bottle, and 2 dr. of strong hydrochloric acid is added and allowed to stand for twenty to thirty minutes, then water in 4 oz. at a time is gradually added, the bottle being well shaken between each addition of water up to the 24 oz.

The PRESIDENT considered the case of great interest and importance; anything which benefited lupus of mucous membranes was of great value.

Dr. WHITFIELD asked that the case might be brought for further inspection in three months' time. The President supported the request, and Dr. Sibley acquiesced.

Dr. J. M. H. MACLEOD showed a case of *superficial ulcerations due to chalk-stones.* The patient was a nervous woman, aged 38 years. In 1896 she was an in-patient at the Charing Cross Hospital on account of severe anæmia and a feeble peripheral circulation; since then her general health had improved. The affection from which she at present suffered began six years ago. It first appeared as red patches which were tender to the touch and felt hot; these were situated on the knees and fronts of the legs. After several months the patches became more painful, chalk-stones appeared in the centre of them, suppuration supervened, and the chalk-stones broke through the surface, became loose and finally separated, after which the patches healed, being followed by slight scarring. At the time of exhibition a number of these patches were present. On the extensor aspects of the arms below the elbows were symmetrical patches about 3 in. in length, which were irregular in outline and presented chalk-stones and superficial ulceration in the centre. Large patches were also present above the ankles, while isolated inflamed lesions, with chalk-stones in the centre, were present in front of the knees. The fingers were also affected. The first finger on the left hand was inflamed and smooth like sclerodermia and a chalky deposit was present near the tip. The second finger showed a chalky deposit beneath the nail. The feet were not markedly involved, but there was some scarring on the right big toe and a history of several attacks of pain and swelling in it, suggesting gout. The chalk-stones were of a whitish-grey colour and varied in size up to a split pea or larger. The smaller stones were oval or roundish in shape while the larger ones were irregular and conglomerate. An examination of the circulatory system showed that the peripheral articles were definitely hard.

The exhibitor considered the condition was a general affection in contradistinction to the local calcareous deposit met with occasionally in Lupus vulgaris and other conditions.

Dr. **MacLeod** said that he had never seen a case similar to the one exhibited and had come to no definite conclusion about it. It did not seem to him that the condition was a prurigo. Clinically, certain of the lesions, especially those about the extensor aspects of the arm, presented a semi-translucent appearance which somewhat suggested the "frog-spawn" skin met with in the lymphodermia which precedes Elephantiasis nostras; microscopically there seemed to be a new formation of fibrous tissue around dilated spaces which were probably lymphatics.

Dr. F. **Parkes Weber** said that a good many of the morbid concretions in this patient were localised in other parts than the fingers. He asked whether a microscopical section of a lesion after decalcification had been examined. In this kind of case the deposit of calcium carbonate and calcium phosphate occurred in a meshwork of fibrous tissue, a sort of sponge. At a later stage the fibrous meshwork might become necrotic, and in that way a real chalk-stone might arise. Much of the literature of the subject was given in a paper which he wrote with Dr. R. E. Scholefield in 1911.* Dr. MacLeod's case showed that the sclerodactylia which was present in some cases was not an essential figure at the commencement of the disease. In the case of a child, which he described and demonstrated at the Seventeenth International Congress of Medicine, the giving of iodide of iron, mixed with a little iodide of potassium, did some good, continued over a long time.† But the pathology of that case might possibly differ from that of the present class of case, to which latter he believed the name "chalk-gout," or "kalk-gicht," had been given by some writers on the subject.‡

Dr. **Whitfield** said Dr. Briscoe had a case somewhat similar, but not on all fours, because there was a definite history of trauma of one thumb, and the calcified nodules were progressive along the hand. Dr. Briscoe gave phosphoric acid internally for a long time, but could not be sure whether it diminished the nodules which were really there; still, no new nodules came after that treatment. It was worth trying, because the metabolism of lime seemed to be intimately connected with that of phosphoric acid.

Dr. **Graham Little** suggested that the acidity should be tested by Joulie's methods before Joulie treatment was adopted. If the urine proved to be consistently hypo-acid by those tests a strong case was made out for administration of phosphoric acid, but this should be given in doses which might be regarded as adequate, that is in much larger quantities than authorised by the British Pharmacopœia. He had had many opportunities of convincing himself of the value of these methods of treatment and strongly supported Dr. Whitfield's suggestion.

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* *Brit. Journ. Derm.*, 1911, xxiii, p. 276.

† F. P. Weber, *Proc. Seventeenth Internat. Med. Congress*, Dermatology (pt. ii), 1914, p. 179.

‡ *See* H. Wildbolz, "Ablagerung von Phosphaten und Karbonaten in Haut- und Unterhautgewebe unter den klinischen Erscheinungen ächter Gicht," *Correspondenzblatt f. Schweiz. Aerzte*, Basel, 1902, xxxii, p. 232.

Dr. ADAMSON asked whether this case belonged to the group of calcareous deposits in the skin which had been described by French and German writers as subcutaneous calcareous granuloma, in which the earlier lesions consisted of nodular collections of embryonic cells, with giant cells, with the central parts occupied by calcareous granules, and other lesions of fibrous-walled cavities filled with chalky matter. A list of published articles on this subject would be found in the recent edition of Clifford Allbutt and Rolleston's *System of Medicine*.

Dr. DUDLEY CORBETT showed a case of *Mycosis fungoides*. The patient, a married woman, had an attack of puerperal fever in 1898, following the birth of her last child. She was in hospital three months. Shortly after her discharge there occurred a bullous eruption on both hands. This condition cleared up in the autumn of the year and recurred during each of the two succeeding summers, lasting some four months on each occasion.

In 1900 a small rounded swelling appeared on the face immediately in front of the left ear, accompanied by a good deal of irritation. She states also that there was some tumour in the throat, which was removed surgically at another hospital. Fresh tumours gradually appeared on the face, and in 1904 she was admitted under Dr. Stainer to St. Thomas's Hospital. There were at that time a few small tumours on the face and a group of red grape-like tumours arising from the labia majora. The diagnosis of Mycosis fungoides was made and the vulvar tumours were removed surgically, while those on the face were treated with X-rays. In 1905 she was reported clear.

In March, 1908, there was a recurrence of the tumours on the face. She was again treated with X-rays, and in July was reported clear. It was found that nine and a half pastille doses were given over each area during four and a half months, a fact which can well account for the skin atrophy.

In the autumn of 1913 one or two small swellings appeared on the legs accompanied by a certain amount of irritation. Early in this year there was a considerable increase in the irritation and dark red eczematous patches appeared on both legs. There were one or two new tumours on the face and a small lesion on the right lower lid close to the inner canthus. She was being treated at Moorfields Hospital for this, applications of CO_2 being employed, which have reduced the size of the tumour. On returning to St. Thomas's Hospital she was put on X-ray treatment, one-half pastille dose unscreened being administered once a fortnight over each area. The result has so far been excellent, the irritation subsiding and the tumours disappearing rapidly.

Lately she had noticed a difficulty in swallowing, and on examination one finds a small rounded tumour involving the right free edge of the soft palate. This will shortly be removed surgically, and it is hoped to show sections at the next meeting.

An examination of the blood shows a normal count with the exception of 6 per cent. of eosinophils. The spleen is not palpable, nor is there any other physical abnormality detected.

It is apparently very rare for the mucous membranes to be involved in Mycosis fungoides.

Dr. Corbett is indebted to Dr. Stainer for permission to publish this case.

The PRESIDENT said the most unusual feature in the case was the tumour on the soft palate.

Dr. S. E. DORE showed the following cases: (1) *Case of acute erythematous miliary Lichen planus.* Patient is a woman, aged 24 years. The eruption, which began on her arms three months previously and spread over the trunk and legs, consisted of minute, closely aggregated, shiny, reddish-brown papules which in parts coalesced to form circinate patches. On account of the small type, close aggregation and erythematous character of the lesions the similarity to Pityriasis rubra pilaris was somewhat striking, but the eruption was absent from the dorsal surfaces of the phalanges and the presence of a characteristic patch of Lichen planus on the buccal mucous membrane of the right side of the mouth confirmed the diagnosis.

(2) *Case of patchy erythematous eruption for diagnosis.* A man, aged 24 years, sent to Westminster Hospital by Dr. A. Cope, had suffered from a patchy erythematous eruption of four months' duration on the neck, chest, back, and upper arms. The patches were irregular in shape, some being angular, others circinate in

outline, while those on the back were linear and showed a tendency to follow the lines of cleavage; they were brownish-red in colour and were neither scaly not definitely infiltrated, nor accompanied by severe itching, although the patient stated that they caused considerable irritation when he was hot. His blood count was normal and the Wassermann reaction negative. The diagnosis favoured by the exhibitor was Parapsoriasis en plaques.

Dr. PERNET suspected Mycosis fungoides in an early stage; the peculiar shape of the lesions were in favour of that diagnosis. The white areas formed the convex part. He did not agree with Dr. Dore as to there being no infiltration. He would use X-rays, because if the patches cleared up under them that would be a strong diagnostic point in favour of Mycosis fungoides. Dr. Pernet asked what some of the speakers meant by parapsoriasis.

Dr. GRAY said that, except in one point, this case bore an extraordinary resemblance to Parapsoriasis en plaques, and that point was the deep colour of the lesions. A case he showed not long ago was generally agreed to have been of that nature; in it the lesions were linear as if they had been produced artificially. In the early stages many of the lesions did not show any scaling at all. One of the striking points about the ordinary case was that the lesions were of a pale pinkish-yellow colour and little visible, whereas these lesions were sharply marked. Possibly the arsenic he had been taking caused a deepening of the colour of the lesions. He asked whether it was now clearing up under local treatment.

Dr. STOWERS did not regard this as a case of Mycosis fungoides, some features common to that disease being absent, but he admitted the difficulty of diagnosis at the present stage. On the whole, he inclined to the view that it was an instance of Parapsoriasis en plaques. He hoped the case would be exhibited again in three months' time when the effects of the suggested treatment could be noted.

The PRESIDENT remarked that the patient presented one lesion only which exhibited anything like the pad-like appearance which he regarded as characteristic of early Mycosis fungoides, namely, a circinate patch on one shoulder. Many of the primary plaques had sharp linear and angular outlines which he had never seen in a so-called pre-mycosic eruption. He would be largely guided, as Dr. Pernet suggested, by the result of the application of X-rays as a therapeutic test. And he considered that the microscope would be of great help, as the histological appearances of parapsoriasis were quite dissimilar from those of early mycosis. In his experience X-rays did not materially affect parapsoriasis.

Dr. DORE replied that the condition was now stationary. There seemed, however, to be slightly more pigmentation than a month ago, although he had not had arsenic during that period. Previously he had taken only 4 minims of liquor arsenicalis for a fortnight. The case closely resembled one he had shown two meetings ago, which the President thought was Mycosis fungoides on account of the pad-like character of the lesions. He (the exhibitor) had not been able to detect any infiltration in the present case.

(3) Case with *subcutaneous nodosities for diagnosis.* A man, aged 43 years, who presented several subcutaneous nodosities about the size of a

walnut, of twelve months' duration, on both sides of the back above the sacrum. The tumours had been preceded by enlargement and suppuration of the right inguinal glands, probably of a tuberculous nature, three years previously, and now represented by an extensive irregular scar in that neighbourhood. The Wassermann reaction had given a negative result. Although the exact nature of the condition was uncertain, the livid appearance and transitory character of the lesions suggested that it was a tuberculide probably corresponding to the "benign sarcoid" of Boeck (or, according to Dr. Adamson, of Darier-Roussy).

Dr. Gray asked whether a tuberculin reaction had been done on the patient. He was much interested in this sarcoid group, because it was not certain that all were of tuberculous origin. A certain high percentage gave a negative reaction to tuberculin.

Dr. Dyson said that inoculation experiments were positive in a fair percentage of these cases.

Dr. Dore replied that one could not attach much importance to the tuberculin reaction in this case. because the patient had had a tuberculous gland in the groin, and it did not follow that the lesions on the buttocks were of the same nature.

Dr. F. Parkes Weber showed an *idiopathic multiple pigment sarcoma* (so-called) *of Kaposi*. The patient, G. Z—, aged 76 years, a Jew from Russian Poland, is a strongly built, corpulent man, of rather plethoric appearance. Over his extremities, and to a lesser extent over his face and trunk, are raised spots and plaques of various shapes and sizes, varying in colour from red or purple to brownish-purple. The brown colour (due to deposition of hæmosiderin ?) is well seen, when the blood is squeezed out of the lesions by pressure, with a glass lens. The distribution of these spots and plaques is mainly peripheral, that is to say, it is of the "acro-" type, the lesions being actually confluent at the extremities of the limbs, so that both hands and both feet appear uniformly turgid and of a purple colour. The legs, up to the knees, and the forearms are much more affected than the thighs and and upper arms. There is (as usually in these cases) chronic œdema of the legs up to the knees. He has several spots over the buttocks and a few over the abdomen. Scattered over the face are red papules of the same nature, and on the glans penis at the urethral orifice is a swollen hypertrophic papule, which is now pale, but is said to have been formerly red, like the other lesions. On the whole, the lesions are more raised and hypertrophic looking, and more dusky (from congestion) on the legs than on the arms. Some of the larger plaques are paler and less raised in parts (especially in the central parts) as if they were fading away there, whereas in other parts—for instance, on one side of the margin—they appear to be still active, as if in fact the lesions in question were spreading in one direction and undergoing involution in another. Pruritus does not seem to be a troublesome feature.

There are as yet none of the little pedunculated pendulous berry-like outgrowths seen in some cases of the disease, as in that described by F. P. Weber and P. Daser in the *British Journal of Dermatology* for April, 1905 (xvii, p. 135). In the present case the disease seems to have commenced gradually two years ago. The patient has been a strong man; he does not appear to have suffered from gout (*vide* remarks of Sir Jonathan Hutchinson in the *Archives of Surgery*, v, p. 237, and vi, p. 132, and elsewhere). There seems to be no disease of the thoracic and abdominal viscera, excepting slight bronchitis; the urine is free from albumin and sugar.

It had been suggested somewhere, he thought, that certain cases diagnosed as examples of "idiopathic multiple pigment sarcoma" were really instances of a peculiar clinical variety of Lichen planus, the disease having been modified by its occurrence in gouty and congested subjects. Dr. Weber was at first doubtful whether the broad plaques on the forearms accorded with typical cases of so-called "idiopathic multiple pigment sarcoma," but Dr. J. J. Pringle kindly informed him that such plaques did occur in undoubted cases of that disease.

The PRESIDENT said there was no doubt that the case was a quite typical one of the disease mentioned by Dr. Weber. It was curious for this man, a Pole, to have developed the condition after twenty-two years' residence in this country. He did not think the patient knew the meaning of the word gout, and he certainly had never suffered from it. Dermatologists were unanimous that the disease was not sarcoma at all. He believed that favourable results from X-rays had been reported, but it must be borne in mind some of the cases recovered spontaneously. His first case, which was under Sir Stephen Mackenzie and himself, recovered absolutely, but with atrophy of the muscles resulting in claw-hands, like those of leprosy.

NOTE.

A Report of the Dermatological Section in connection with the British Medical Association's Annual Meeting at Aberdeen is unavoidably held over to the next number, as is also the Report of the Manchester Dermatological Society's July meeting.

CURRENT LITERATURE.

LICHEN PLANUS OF THE TONGUE ALONE. Douglass W. Montgomery, M.D. (*Journ. Cut. Dis.*, July, 1914, vol. xxxii, p. 481.)

In this contribution a case is described in a woman aged 47 years, who came under the observation of the writer on account of two patches on the dorsum of the tongue which at first sight seemed to be leucoplasia, but which were subsequently diagnosed as Lichen planus. The patches were situated bilaterally about the centre of the tongue, were dull-white in tint with a lacework periphery, and under a lens the surface of them was seen to be papular. There were no subjective symptoms in the patches themselves.

According to the writer, Lichen planus is a general constitutional disease with eruptions on the skin and mucous membranes.

Lichen planus of the mucous membranes may follow a lichen eruption on the skin, may co-exist with it, may appear first on the mucous membranes and break out on the skin later or, finally, may exist on the mucous membranes alone. According to Trautmann, who tabulated 150 cases of Lichen planus of the mucous membranes, in 61 per cent. the lesions on the mucous membranes co-existed with lesions on the skin, while in 16 per cent. the mucous membranes alone were involved.

The last part of this interesting paper is occupied with the subjective symptoms of Lichen planus of the tongue. These may be either absent or marked and consist of special sensitiveness of the tongue to hot or peppery foods, and of unpleasant or painful sensations about the affected part. The affection may take the form of scattered papules which appear as white dots on the mucous membranes; or of white patches, due to the aggregation of a number of papules, covered with a thickened layer of epithelium; or of a meshwork of white lines crossing one another, sometimes with a nodule at the point of crossing.

J. M. H. M.

REVIEWS.

Salvarsan Fatalities.*

Der Salvarsantod, a book which collates the writings of many physiologists and clinicians of standing, is a most scientific and well-reasoned exposition of the writer's opinions on the causes of death from intravenous injections of salvarsan and neo-salvarsan. In the opening chapter he cites the experiments of Prof. Heinz-Erlangen on the results of introducing arsenic into the circulation of animals. All this observer's experiments and those of other authorities go to prove that arsenic thus administered is a violent vascular poison, producing its effects both locally on the neurovascular endings, the endothelium, and the clotting power of the blood itself, and centrally on the vaso-constrictor centre, paralysing this and exalting the functions of vaso-dilatation. Hyperplasia and stasis on the venous side are the invariable sequelæ and lead to death from cerebral anæmia. Salvarsan contains 34·2 per cent. of arsenic, and the experimental effects on animals are exactly the same as those of intravascularly administered arsenic. These have been most carefully studied in the pancreas and mesentery of living rabbits by Hoppe and Schreiber and others, and the results have suggested a new and more scientific explanation of the Herxheimer reaction than that which would assign its appearance to a surplus of surviving spirochætes and their endotoxins. The vasotropic action of salvarsan is more marked where the organ observed is first artificially damaged (*e.g.* ligature of the pancreatic duct), and it is suggested that the local lesions of a syphilitic roseola are *loci minoris resistentiæ*, in which the additional vasotropic influence of the drug would cause exacerbation of the already existing vascular dilatation. On the same grounds these authors would explain the occurrence of "neurorezidives," which, according to Ehrlich's dictum, are the result of surviving spirochætal activity. This explanation, while it fits the Herxheimer phenomena very well, cannot be accepted as Schindler suggests, as a satisfactory settlement of the neural recurrence problem, for it is directly opposed to the experiences of those who have cured it by the heroic administration of further intravenous injections of the drug, both in this country and abroad. (Milian, Gray, and others.)

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* *Der Salvarsantod. Seine Ursache und seine Verhütung. Intravenöse oder intramuskuläre Salvarsaninjektionen?* By Dr. Carl Schindler. Berlin: S. Karger (Publishers), 1914. Price 4*m.* 8*o.*; bound 5*m.* 8*o.*

The broad purpose of the whole book is soon revealed, and the author, whilst claiming to be a follower and believer in salvarsan therapy is irreconcilably opposed to the intravenous method of administration in which large quantities of arsenic are suddenly thrown into the circulation. According to him a fatality can never be prognosticated, nor is it possible to give minimal doses of a drug with which as small a quantity as ·2 g. caused the death of a girl, aged 14 years, with interstitial keratitis. It is this point of view doubtless which has led him to make the dubious insinuation that deaths from intramuscular injections had not taken place. "Warum," he asks, "sind diese Todesfälle bei sonst gesunden Syphilitikern früher nicht auch nach intramuskulären Salvarsaninjektionen vorgekommen . . . ?" The whole meaning of the query hinges on the word "früher," which, in point of time, is not a fixed period, and the fact that deaths have occurred and do occur, though not with equal frequency, possibly because intravenous injections are more generally administered than intramuscular (*e.g. Bulletin de la Société Française de Derm. et Syph.*, December, 1913, No. 9, "Cas de mort causés par les injections intramusculaires d'arsénobenzol," Balzer et Baudouin) is a potent and unanswerable contention which cannot be over-ridden by any number of counter-statements. The importance of these statements, and their potent bearing on the whole problem of syphilis therapy have not been exaggerated by the author and the conclusions he arrives at will be conceded by the majority of his readers especially by those who have had the misfortune to meet with a fatality. It is in the suggestion he makes, to abandon the intravenous method altogether in favour of the intramuscular that he is likely to meet with the most formidable opposition. This is no panacea against salvarsan dangers, for deaths have also occurred after it, and the resulting infiltrations, abscesses and necroses have oftimes disabled the unfortunate patients for months. Whilst the problem cannot be regarded as solved, Dr. Schindler deserves the highest praise for his careful and laborious analysis of published cases. He has certainly advanced the scientific therapy of syphilis, and his book is certain to be read and accepted as a classic in the domain of salvarsan literature. H. C. S.

DIE WASSERMANNSCHE REAKTION, MIT BESONDERER BERÜCKSICHTIGUNG IHRER KLINISCHEN VERWERTBARKEIT.*

THE appearance of a second and enlarged edition of this useful monograph so soon after the first indicates the rapid adoption of the reaction into general medicine. The volume contains all recent research work done in connection with the reaction, and a careful study will repay all who are interested in the subject, whether from the technical or clinical side.

The first chapter consists of a *résumé* of the evolution and theories of the reaction. In the second the author's technique is detailed; he considers that with his technique as good results are obtained by the simple alcoholic human heart extract as by the use of the reinforced cholesterin antigens. The more important modifications are also shortly described. The latter part of the book contains a summary of the results obtained and a discussion on the results of other workers.

The more important of Boas' results are as follows:

	No. of cases.	Positive results.	Percentage.
Primary syphilis	137	99	70·8
Secondary syphilis—			
Untreated	437	437	100
Treated	310	292	94·1
Tertiary syphilis—			
Untreated	132	129	97·7
Treated	35	26	57·1
Latent syphilis	363	143	39·1
Tabes	58	40	68·9
Dementia paralytica—			
Serum	243	243	100
Cerebro-spinal fluid	201	189	94

In criticism of these figures one might point out that the number of positive results obtained in primary syphilis and with cerebro-spinal fluid in general paralysis are on the low side as compared with the results that have been obtained with cholesterin containing antigens. Although lumbar puncture does not seem to be used for diagnostic purposes in Denmark as much as it might, yet Boas' figures are instructive. The cerebro-spinal fluid from twenty-two cases of secondary syphilis without involvement of the nervous system was examined, and only once found positive, while in two cases with nerve relapses it was positive.

The author insists on the effect which efficient treatment has in lessening the strength of the reaction, and emphasises that a positive reaction is a certain sign of syphilis. J. M.

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* *Die Wassermannsche Reaktion, mit besonderer Berücksichtigung ihrer klinischen Verwertbarkeit.* By HAROLD BOAS. Second and enlarged edition. Berlin: S. Krager, 1914.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

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Acute Disseminated Skin Tuberculosis in Infancy. Z. Bruusgaard. (*Derm. Woch.*, 1914, vol. lviii, p. 561.)

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SOME REMARKS UPON ZONIFORM OR SEGMENTAL NÆVI.

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The term nævus, which signified originally any kind of birth-mark, has acquired for the medical public a more restricted meaning and is generally applied only to vascular nævus.

Dermatologists have rightly retained the older and wider meaning, and use a distinctive adjective to indicate the kind of nævus. Thus we have Nævus spilus, Nævus pigmentosus, Nævus verrucosus, Nævus pilosus, Nævus lymphaticus, as well as Nævus vasculosus; and a nævus may be defined as a localised congenital overgrowth of any of the elements of the skin or its appendages.

All nævi have certain common characters:

(*a*) They are not of necessity apparent at birth, but may show themselves at a subsequent date—particularly towards puberty, and in some instances towards late middle-life.

(*b*) They may disappear spontaneously.

(*c*) They are frequently associated with other forms of nævus or with other congenital defects or abnormalities.

Certain nævi have characteristic groupings or distributions: Some involve symmetrically the palms and the soles; others occur especially about the sides of the mouth and nose and around the eyes; a third group are arranged in lines or zones either on one side of the body, or bilaterally and symmetrically or asymmetrically. There remains a large section in which the distribution is irregular or widespread and without any apparent arrangement.

It is with the third group, the zoniform, or systematised, or segmental nævi that this short communication deals. No attempt is made to discuss the vexed question of the meaning of the zoniform distribution. The object is to suggest that the field of zoniform nævi, hitherto generally restricted to the unilateral linear verrucose nævus, should be greatly enlarged and made to include nævi of other elements of the skin, particularly certain pigmentary forms, the affections known as Angioma serpiginosum and Lymphangiectodes, and some at least of the Leiomyomata.

A few examples of linear verrucose nævus will serve to illustrate some of the common characters of these growths for comparison with other affections which it is proposed to include in this group.

The case described and pictured by Dr. Stowers in the *British Journal of Dermatology* in January, 1908 (1), of congenital Ichthyosis hystrix (syn.: Nævus verrucosus, etc.), is a good example of bilateral distribution, and of association with another congenital defect, in this case: Talipes varus.

That linear warty nævus may disappear is shown by the case of an infant exhibited by the writer in 1906 (2), in which there were warty streaks on the left side of the trunk and on the left leg, with absence of the left nipple. Five years later the warty streaks had disappeared and the absent nipple had made its appearance.

A case exhibited by Dr. Sequeira (3) and another by Dr. Knowsley Sibley (4) demonstrated the fact that the mucous membranes of the mouth may be involved.

Another feature of these nævi, that they may not become apparent until early childhood or even towards puberty and then rapidly develop, is too well known to need illustration.

One more curious feature, mentioned by Unna (5) and by Jadassohn among others, is that these nævi are liable to "inflammatory periods." Jadassohn, indeed, supposes that a certain degree of latent inflammatory condition is always present in these nævi, and that the least disturbance is sufficient to set up a more manifest inflammation (6).

That zoniform nævi may be composed of elements of the skin other than those found in the linear verrucose nævus has been demonstrated by several observers. Hallopeau has described a linear nævus made up of *agglomerated hair follicles and sebaceous glands* (7); Paterson (8) and Elliot (9) have recorded *a zoniform nævus of sweat-gland structure*; and Jadassohn (6) one consisting of *sebaceous glands.* Jadassohn has proposed to divide linear nævi into two groups: (1) "Organ-nævi," which includes sebaceous and sweat-gland nævi, vascular and hair follicle; (2) "Gewebsnævi," which are made up of the simple elements of the skin.

A case of mixed vascular and verrucose unilateral zoniform nævus was shown by the writer in 1910 (10), and Dr. MacLeod then called attention to a plate in the St. Louis Atlas (Pl. xliv, p. 259), Baretta model, No. 1772 (a patient of Gaucher's), which showed exactly the same conditions.

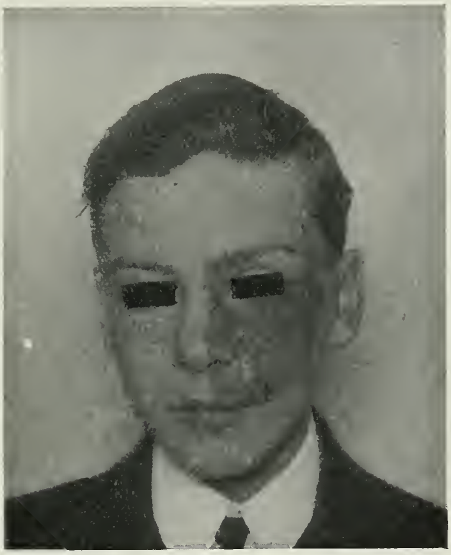

Fig. 1.—Zoniform vascular nævus.

The common port-wine nævus may sometimes take a marked zoniform distribution, as in the case shown in the accompanying photograph, in which the nævus was sharply limited to one half of the face (Fig. 1).

Several examples may be given of pigmentary zoniform nævus. In the *British Journal of Dermatology* (11) the writer recorded the case of a young woman in whom there occurred split-pea-sized deep brown macules, thickly sprinkled over the left side of the trunk from the level of the nipple to the crest of the ilium and strictly limited by the middle line in front and behind. And in this case there was a feature which is common to many zoniform nævi—there was another congenital deformity in the form of a supernumerary nipple on the opposite (right) side (Fig. 2).

A closely similar case was shown at a meeting of the Dermatological Section by Dr. Macleod in 1913 (12). This patient was a girl, aged 16 years, who had large brown freckle-like patches, about the size of a lentil, distributed on the left side of the trunk from the axilla to the buttock. They had appeared at about the age of ten years. There was a superficial capillary nævus on the right wrist and back of the hand, which had been present at birth.

Another, and a very striking, case is that depicted in the accompanying photographs (Figs. 3 and 4). In this case the pigmentation was markedly zoniform in distribution, and occupied alternate segments on the two sides of the body, so as to give a sort of "harlequin" appearance.

One more example of pigmentary zoniform nævus may be mentioned—a case notable on account of its bilateral distribution, of the atrophic scarring following the pigmentary condition, and of the numerous congenital malformations with which it was associated. The case was shown at a meeting of the Dermatological Section in 1907, and a note was published subsequently (13).

But the examples given do not comprise all of the different kinds of zoniform nævus, and a brief study of the affections known as Lymphangiectodes, Angioma serpiginosum, and Leiomyoma suggest that these affections should also be put into the same group.

Lymphangioma circumscriptum or *lymphangiectodes*, an affection first described by English observers, is by many writers regarded as a nævus, but its close relationship to unilateral linear verrucose nævus does not appear to have been noted. Like linear nævus, it appears first in childhood or infancy; it occurs as an elongated patch or band on one side of the body; it may involve mucous membranes, and warty projections may be present in addition to the vesicles, and sometimes hide them so that the simulation of warty linear nævus is marked.

In several cases recorded the zoniform distribution has been especially pronounced.

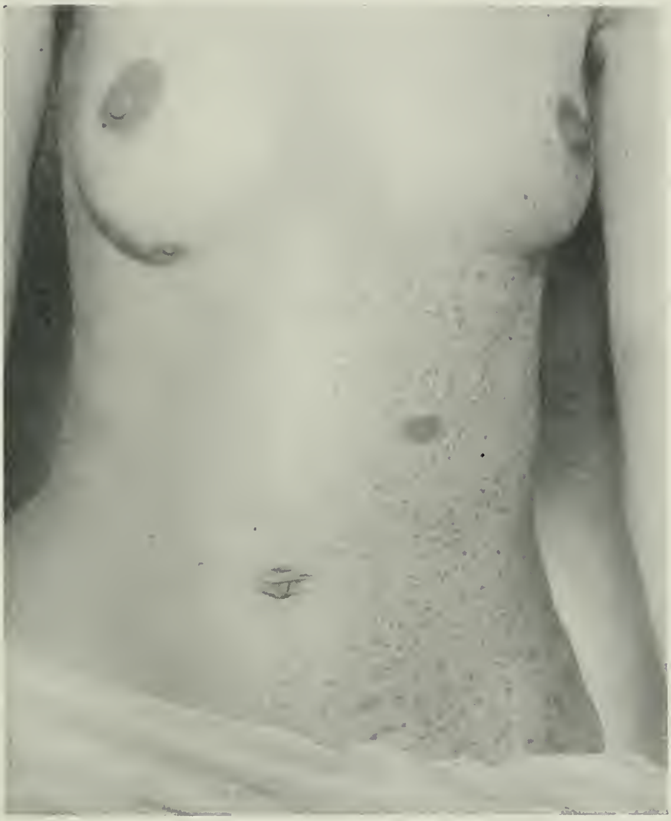

FIG. 2.—Zoniform pigmentary nævus associated with supernumerary nipple (right side).

TO ILLUSTRATE DR. H. G. ADAMSON'S ARTICLE: SOME REMARKS UPON ZONIFORM OR SEGMENTAL NÆVI.

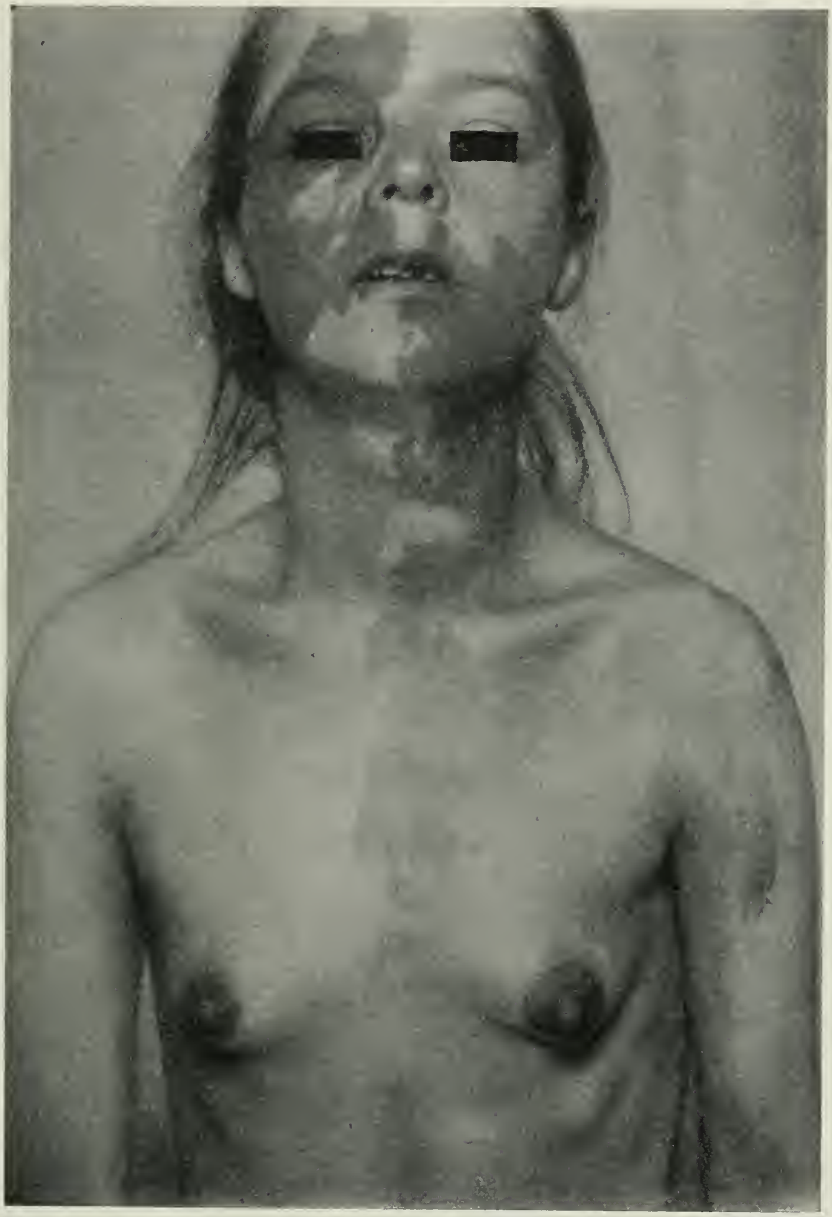

Fig. 3.—Zoniform pigmentary nævus.

TO ILLUSTRATE DR. H. G. ADAMSON'S ARTICLE: SOME REMARKS UPON ZONIFORM OR SEGMENTAL NÆVI.

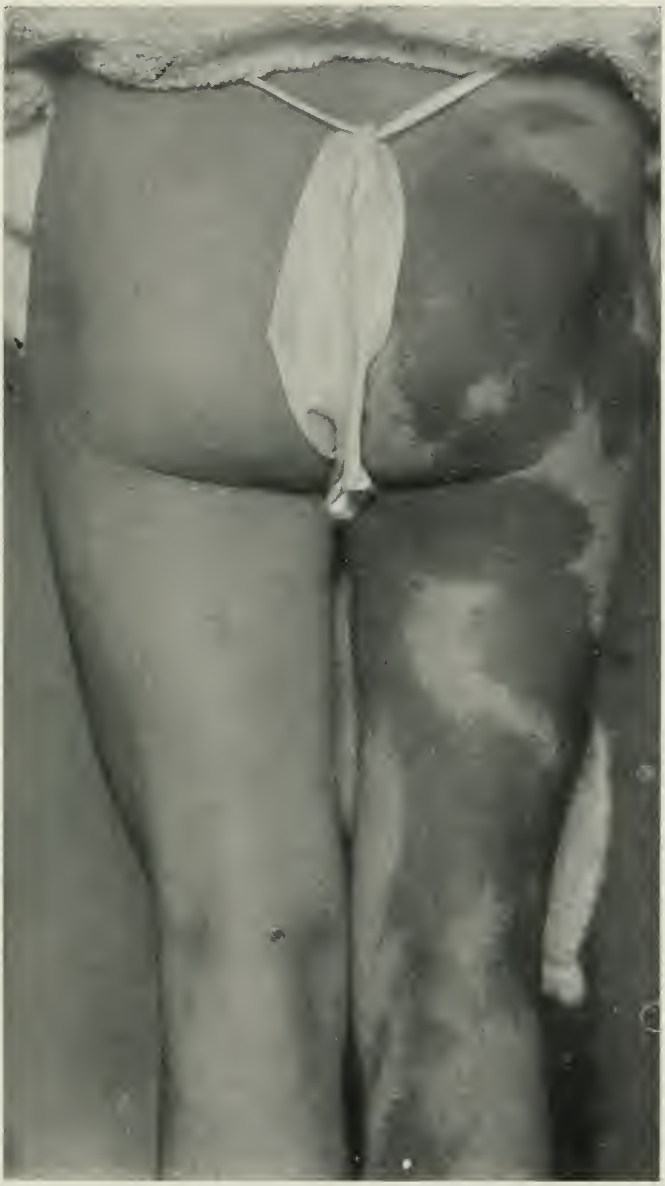

FIG. 4.—The same case as Fig. 3.

TO ILLUSTRATE DR. H. G. ADAMSON'S ARTICLE: SOME REMARKS UPON ZONIFORM OR SEGMENTAL NÆVI.

In Corbett's case, quoted by Crocker, "it formed a half-inch band from the middle of the thigh behind to the tendo Achilles, and then under the external malleolus it broadened and ended on the middle and inner margin of the foot." This was unilateral—on the left side. The similarity of distribution to many verrucose nævi is very striking in this case.

In a case recorded by Colcott Fox and quoted by Francis (14) in his admirable monograph on this disease, there was "a continuous band of confluent vesicles and papules, like frog's spawn, the whole way down the limb."

In yet one other respect lymphaniectodes may resemble verrucose nævus. It is well known that these lesions are liable to inflammatory outbursts, or, as Hutchinson has described them, "erysipelatoid inflammations," and these would seem to correspond with the "inflammatory periods" already noted as mentioned by Unna and others in cases of linear warty nævus.

Yet another type of nævus which has in many cases a zoniform distribution is the affection known as *Leiomyoma*. Jadassohn's first case (1890) involved the right arm, axilla and scapula, and in another case the myomata extended from the middle of the arm to the wrist on the extensor surface (15).

Jarisch, in 1895, published the case of a cretin, aged 54 years, in whom the left half of the face and the left side of the forehead were affected (16).

In Leslie Robert's case there was a group on the right side of the face in front of the ear, and the lanugo hairs were hypertrophied in the neighbourhood (17).

In Wallace Beatty's case (18) the nodules were distributed mostly on the left side of the upper part of the body, but in front of the upper part of the thorax they were bilaterally and symmetrically arranged. On the forehead they were sharply limited to the left side by the median line (see photograph published with Dr. Beatty's article).

In Whitfield's case (19) there was a triangular area on the right side of the forehead, which was said to have followed an attack of Herpes frontalis, not seen by Dr. Whitfield, and which may have been an "inflammatory period" and not a herpes.

In MacLeod's case (20) there were several patches on the limbs, and a streak on the cheek and a vascular nævus upon the nose.

Although in some of these cases the lesions had appeared in adult life, this fact does not exclude them from the nævus group. In many instances they have been present since infancy or childhood.

Finally, the suggestion is made that *Angioma serpiginosum,* first described by Hutchinson under the title "infective angioma," is also a zoniform nævus. Its appearance generally in early life, and its association in a proportion of the cases with the more ordinary vascular nævus are links in this connection, while its tendency to spread, and the fact that it sometimes disappears, by no means exclude it from this group.

Leslie Roberts' case (21) began on the leg and spread from the ankle to the buttock on one side. The patient was born with a nævus on the lip.

White's case (22) presented, at 12 years of age, a belt three inches wide and six inches long, extending from the right scapula towards the nipple. At birth there had been a purplish-red nævus below the right scapula.

In Tay's case (23) the angioma began on the right calf and spread nearly all over the right leg. The left leg was affected slightly.

In Jamieson's case (24) it began on the front of the right forearm, spread over the arm and forearm to the deltoid and down the radial side of the wrist and back of the hand to the root of the thumb and of the forefinger.

Hutchinson's case had a very similar distribution (25). It started from a small port-wine mark soon after birth.

In Francis' case (International Atlas), there was a marked linear distribution; but Crocker says this appears to be a growing capillary nævus of the "port wine" character.

In Sequeira's case (26) the angioma extended over the front and outer side of the right upper arm, the right shoulder, neck and chest —but not across the middle line—and over the front of the forearm as far as the dorsal surface of the forefinger and front and back of the thumb.

To sum up:

(1) Unilateral linear verrucose nævus is not the only form of zoniform nævus. Such nævi may be composed of other elements of the skin, including pigment, hair, blood-vessels (capillary nævus, port wine stains or angioma serpiginosum), lymphatics (lym-

phangiectodes), unstriped muscle (leiomyomata), sweat-glands or sebaceous glands.

(2) These zoniform nævi are not necessarily unilateral, but they may be symmetrically or non-symmetrically bilateral.

(3) Features common to zoniform nævi, as well as to other forms of nævi are: their tendency to appear, not at birth, but at some later period; the fact that they may, in some instances, disappear; their frequent association with other congenital deformities; that they may involve mucous membranes; and the unexplained tendency to "inflammatory periods."

(4) There is probably a closer relationship between these various forms of zoniform nævi than is generally supposed and it is possible that further histological examination will demonstrate the truth of Meissner's view that in the ordinary linear warty nævus the warty growth is secondary to a lymphangiectasis and telangiectasis (27).

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A FATAL CASE OF PURPURA.

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The patient, a well-grown boy, aged 12 years, the son of an engineer's labourer, was admitted to the London Hospital on April 9th, 1913.

History of present illness.—He had been quite well until five days before admission. He then began to complain of a slight soreness of the throat, accompanied by aches and pains all over the body, which were still present at the time of admission. Two days later a rash appeared. There was some vomiting but no diarrhœa.

Previous history.—The boy had been in the London Hospital for three months (April to June) in 1911. Before being taken in at that time he had been ailing for four weeks. His illness had commenced with tonsillitis, followed by a purpuric rash over the extensor surfaces of both feet and both arms. Later this was followed by severe abdominal pains, with symptoms of collapse and the passage of blood in the stools. He was first taken to Poplar Hospital, where he was kept under observation as a case of possible intussusception. After a time he was transferred to an isolation hospital, with the provisional diagnosis of smallpox. Thence he found his way to the London Hospital. On the day he was admitted he passed for the first time a quantity of blood and albumin in his urine.

On physical examination he was found to be anæmic and to be suffering from severe stomatitis. A nodular purpuric rash was present, principally on the extensor surfaces of the hands and feet. The temperature was slightly raised, and the pulse 108. There were signs suggestive of a fluid effusion at the base of the right lung. The spleen could not be felt. The glands in the left inguinal region were slightly enlarged. A differential blood count showed a leucocytosis of 17,200, consisting of: Polynuclear neutrophils, 83 per cent.; small lymphocytes, 12 per cent.; large hyaline, 1·5 per cent.; transitional cells, 3·5 per cent. The purpuric rash came out in definite crops, and he continued to pass a large quantity of blood in his motions. On the fourth day after admission he began to have a series of fits, starting with twitching in the fingers of the right hand, thence spreading to the face and the legs. Occasionally the fits started at the angles of the mouth, and spread to the arms and legs. The fits followed one another in rapid succession till finally controlled by chloroform inhalation.

This was followed by incontinence of urine and of fæces, whilst the knee-jerks were lost. The incontinence of urine and the passage of blood *per rectum* continued for several days, the patient lying all the time in a state of stupor. He then began to improve. The rash continued to appear in crops off and on for some weeks, while the hæmaturia persisted until well into the third month. During the whole time he was subject to occasional rises of temperature, but these never lasted for more than one night. On the day of his discharge from hospital (June 28th, 1911) the urine was quite clear and free from albumin.

The boy was seen again on December 7th, 1912, when he was looking rosy and well. Some three weeks earlier he had had a very severe headache, which had lasted two days, and had been associated with vomiting. With that single exception he had had no symptoms of any kind since his discharge from hospital. The parents said his memory had been very bad for some time after being discharged from hospital. But for a faint trace of albumin in his urine he appeared to be a perfectly healthy boy.

Condition on admission.—April 9th, 1913 : He was a well-developed, well-nourished boy. Temperature, 99·4°. As in the previous attack his mouth was foul ; the tonsils were enlarged and septic looking. The teeth were good and the gums not spongy. There was a papular purpuric eruption on the flexor surfaces of both arms, mainly below the elbow and on the flexor and extensor surfaces of both legs below the knees. There were pain and tenderness all down the spine, in the left shoulder, in both hands and fingers, and in the left big toe, the metatarso-phalangeal joint of which was slightly swollen. There was also slight swelling in the metacarpo-phalangeal and interphalangeal joints of both hands, most marked in the thumb of the left hand. The heart and lungs were clear. The abdomen was generally tender all over, but there were no localising signs to be made out and no rigidity of the abdominal muscles. The spleen could not be felt. Nothing abnormal could be distinguished by the finger in the rectum.

Progress of the case.—April 11th : He complained of acute abdominal pain referred to the epigastrium. He vomited copiously and was unable to keep down any food. The urine was almost solid with albumin and there was a trace of blood in the stools.

April 16th : A fresh crop of purpura appeared on the soles of the feet and on both buttocks; it was associated with considerable tenderness to touch. Purging was almost constant—eighteen motions being passed in the twenty-four hours. The stools were very foul. Blood was observed for the first time in the urine. There was also some bleeding from the gums.

April 29th and 30th : Another severe attack of diarrhœa.

May 7th : Hæmaturia was still abundant and tube-casts were present in great numbers. Blood was no longer present in the stools. Abdominal pain and nausea persisted, and he was again complaining of pains in the joints, particularly the fingers and knees. A large herpetiform patch appeared on the lip at the right angle of the mouth. There were no abnormal physical signs in the lungs.

May 11th : He became very drowsy. In the afternoon he suddenly had a fit which lasted about thirty seconds, consisting of general twitching of the legs, arms, and face. He was quite unconscious while the fit lasted, but recovered quickly, lapsing again into a state of stupor. He vomited several times.

May 12th : His condition remained the same. In the afternoon he passed an immature Ascaris lumbricoides.

May 16th : He gradually passed into a typhoidal condition. Marked abdominal tenderness persisted. He had retention of urine, only a very little being passed after the administration of an enema. He could only be induced to take a very little milk. A fresh outbreak of papular purpura, with *a surrounding area of erythema* appeared on the arms and legs and buttocks. Large raised patches broke out on the neck.

May 17th : His general condition was much worse. He passed no urine at all naturally ; 20 oz. of blood-stained urine were drawn off by catheter. He vomited several times. The rash on the arms and legs had progressed to the stage of vesication.

May 19th : The urine amounted to only 8 oz. by catheter and none at all naturally. There was a further outbreak on the buttocks while many of the large patches in the neck had become confluent. He lay in a semi-comatose condition. His tongue was red, dry, swollen and blistered. It was necessary to have recourse to nasal feeding.

May 21st: He passed 8 oz. of urine naturally. He seemed generally better and was able to swallow his feeds.

May 22nd: He had another fit at mid-day: commencing as a tonic spasm of arms, legs and trunk, succeeded by general twitching as before. He was still able to pass his urine naturally.

May 23rd: A high-pitched whistling murmur was noted for the first time, the point of maximum intensity being over the heart's apex. The murmur was systolic in time and was inaudible at the aortic and pulmonary areas. The area of cardiac dulness was not enlarged.

May 24th: He was obviously much worse, being again in a stuporose typhoid state. The vesicular rash had advanced to the pustular stage, many of the pustules being confluent. Abdominal tenderness was still marked.

May 25th: He developed complete incontinence of urine and fæces.

May 26th: The heart's apex was observed outside the nipple line and the systolic murmur previously noted was more intense. He was completely unconscious all the morning and died at 4 p.m.

At no time throughout the seven weeks' duration of the illness was there any marked degree of pyrexia. For the first fortnight the temperature remained normal or sub-normal: this was succeeded by a fortnight of remittent fever, the temperature ranging from normal in the morning to 100° F. in the evening, the highest point reached being 101·2° F. During the third fortnight the temperature was irregular, rarely rising above 100° F., only once touching 101° F. For the last week the temperature varied between 97 and 98° F.

A blood-count was taken on April 18th, and gave the following results: Erythrocytes, 5,700,000; leucocytes, 6200; hæmoglobin, 80 per cent.; colour index, 7.

The differential leucocyte count was as follows: Polynuclear neutrophils, 72·5; polynuclear eosinophils, 1; small lymphocytes, 18; large lymphocytes, 4; large hyaline cells, 3; neutrophile myelocytes, 1·5. The coagulation time of the blood was not estimated.

Blood cultures taken on May 24th, by Dr. Western, of the Bacteriological Department, remained sterile after three days' incubation at 37° C. under aerobic and anaerobic conditions.

AUTOPSY.

At the post-mortem examination the following condition was found: There was a warty purpuric rash all over the body, in places ulcerated, the parts most affected being the forearms, buttocks, knees, and feet.

Tongue.—Atrophic glossitis. There were a few shallow, irregular ulcers, on the dorsum and tip of the tongue.

Stomach.—Very severe catarrh of the mucous membrane, with here and there streaks of altered blood. There was an acute ulcer 1·3 cm. in diameter on the posterior surface near the lesser curve, situated 3 cm. from the pylorus, and 17·5 cm. from the œsophagus. There were a few shallow erosions scattered throughout the mucous membrane. On the greater curve, 7·5 cm. from the cardia, was another ulcer almost completely healed.

Small intestine.—There were a few shallow irregular ulcers in the lower jejunum and ileum.

Large intestine.—There were numerous, large embolic hæmorrhages in the cæcum, ascending, transverse, and descending colon. There were also numerous irregular erosions throughout the large intestine, some of them showing patches of yellow necrosis in their bases. There were patches of diffuse hæmorrhage all over the large and small intestines, but especially in the ileum and colon. There were small hæmorrhages in the colic glands.

Liver.—Œdema and parenchymatous degeneration with numerous small hæmorrhages.

Kidneys.—Acutely inflamed "red speckled kidneys." There were submucous petechiæ in both pelves. In the substance of both kidneys there were a few small abscesses and some recent infarcts.

Bladder.—Numerous small hæmorrhages and a few nodular necroses on the mucous membrane.

Spleen.—Enlarged and "septic."

Heart.—There were subendocardial hæmorrhages in the right auricle; œdema and parenchymatous degeneration of the myocardium; small fibrinous and beady vegetations with hæmorrhagic bases on the contact margins of the mitral valve.

Lungs.—Severe œdema; numerous hæmorrhages throughout the lung substance.

Joints.—Both the right knee and the hip-joints contained an excess of cloudy glairy fluid.

REMARKS.

This case is yet another example of the type of purpura complicated by visceral lesions, to which Sir William Osler recently devoted an illuminating paper in the *British Medical Journal.* A reference to the *Principles and Practice of Medicine,* by the same distinguished authority, will show that all the leading characteristics of Henoch's purpura are embodied in the case here described. Unfortunately the name Henoch's purpura is applied to a series of signs and symptoms rather than to a definite clinical entity, and it seems possible that there are many underlying causes at work in their production. All authorities lay great stress upon the importance of the renal complications of this condition and the frequency with which they lead to a fatal termination. That uræmia was the immediate cause of death here, as in most of the other cases reported, seems evident from the constant drowsiness, the fits, and the alterations in the secretion of urine which heralded the end. That the renal condition, however, was secondary to some other source of toxæmia and not the original trouble is, I think, equally certain.

In regard to the fits, of course they may have been caused by small intracranial hæmorrhages. Unfortunately permission to examine the brain could not be obtained from the relatives, so that this particular point was not fully cleared up. That the cardiac condition was purely a terminal complication may also be inferred from the absence of any signs until the last few days.

The post-mortem evidence suggests a very severe intoxication originating from some focus in the alimentary tract. The condition of the mouth, the extensive ulceration of the stomach and intestines and the frequent occurrence of large hæmorrhages into the intestinal mucosa all seem to indicate that the exciting cause was an extremely virulent one. That in this case, at any rate, any error or deficiency in diet was responsible as in the allied condition of scurvy is extremely doubtful; the patient was the son of fairly well-to-do parents, and there was no evidence from the history, or more directly that there was ever at any time any lack of sufficient and proper food. In the occurrence of the two almost identical attacks with an interval between them of excellent health, the disease here seems to have followed the general rule with the exception that the interval in this case seems to have been rather longer than usual. It is a curious coincidence that both the attacks commenced on almost exactly the same day of the same month.

The part played by the round worm is not altogether clear. It is known that the ascarides secrete an irritant poison, and the meningeal symptoms sometimes associated with their presence in children have been ascribed to the action of this substance. With no record, however, of any worms having been discovered in the first attack of the illness and the finding of only one fledgling worm in the second, it would be safer to regard its presence merely as incidental and not to elevate it to a position of greater importance.

A word should be said about the rash. As the disease advanced it ceased to be a simple uncomplicated purpura. The nodules were large and progressed through all the stages down to actual ulceration. In many cases there was a surrounding area coalescing with their neighbours to form large patches. Presumably the naked-eye manifestation was a reliable index of the very high degree of toxæmia present.

In regard to treatment, practically every drug which is credited with producing good results in this disease was given a trial—and one and all failed signally to effect any improvement in the patient's condition whatever. Aspirin failed to relieve pain and did not clear up the joint condition. The colic on several occasions was so bad that injections of morphia had to be given. The usual antiscorbutic *régime* availed not at all. Salol, β naphthol, polyvalent antistreptococcic serum, calcium lactate, oil of turpentine, and pituitary extract were all administered in turn and proved useless.

In conclusion, I must express my thanks to Dr. Cecil Wall, under whose care the patient was, for allowing me to publish these notes, and to Dr. Turnbull, of the Pathological Institute, for permitting me to make use of the notes taken at the post-mortem examination.

CLINICAL NOTE.

GENERALISED HERPES ZOSTER.

By GEORGE PERNET, M.D.

Generalised Herpes zoster is an uncommon condition. The following details of a severe case may therefore be of some interest. The patient was a man, aged 80 years (I, 65, 1911). Nine days before I saw him he had had pain about the front and back of the left upper part of the chest. After a week's pain, an extensive characteristic Herpes zoster occurred, involving the left upper side of the thorax, front and back, the left axilla and the upper inner posterior part of the left arm. The vesicles were numerous and closely aggregated. Some of the patches looking as if they might go on to necrosis. The band-like areas corresponded roughly to the third, fourth, and fifth dorsal. It is well-known, since Tenneson called attention to the point, that here and there aberrant vesicles may usually be found if carefully looked for, but in this case there were a very large number of discrete vesicles scattered all over the trunk and limbs, very few being found, however, below the knees as far as the legs were concerned. There were also a few about the face and scalp, but none in the mouth. The generalised vesicular rash looked like a bad attack of varicella. The temperature had been 100° F. and at the time of the consultation was still 100° F., and the patient looked ill, and no wonder, considering his age.

As to the ætiology, he gave a history of having badly burnt his left thumb with matches three weeks before I saw him. A big blister followed the burn, the fluid was let out and strapping applied. The injured part " festered." One week before I saw him he had had a severe chill. This was, no doubt, a febrile attack connected with the Herpes zoster eruption.

Bed, lotio calaminæ and an effervescing citrate of potash mixture were ordered by me.

I saw the patient once only, but I was informed about a month later that he had done very well and had quite recovered from the attack.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

DERMATOLOGICAL SECTION.

THE Annual Meeting of the British Medical Association was held this year in Aberdeen, under the presidency of Dr. Eddowes. After a short introductory address by the President, Dr. Norman Walker read a paper on "The Need for More Method in the Conflict with Lupus and Ringworm." The author was very pessimistic as to the efficacy of the methods of treating lupus, stating that of 1054 cases seen during twenty-two years, he did not believe that 100 had been cured. The chief factor in the poor results obtained was the irregular attendance of patients. In Dr. Norman Walker's experience one case in thirty of his hospital patients suffered from lupus, and one in seventy of his private patients. He advocated scraping, followed by the application of nitrate of uranium, which was both caustic and radioactive. He had also obtained good results from the use of Unna's creosote and salicylic plaster, but its application required perseverance. The methods of treatment by the X-rays, Finsen and Kromayer lamps were recommended in certain cases, and an important warning was given as to the risk of inducing carcinoma by prolonged and injudicious use of the X-rays. Treatment by tuberculin was also advocated, especially in cases where the lupus was in the neighbourhood of large joints. Perseverance was the essential factor in the successful treatment of Lupus vulgaris by whatever method was employed.

In his consideration of ringworm Dr. Norman Walker mentioned that the proportion of cases seen in his clinic remained about the same until 1912, when school inspection began. This naturally caused a large increase, and successful results were obtained where regular attendance of the children at hospital could be ensured, and in this respect great assistance had been given by the improved care of the children by the school medical authorities.

The President, Drs. Goodwin Tomkinson, Haldin Davis, Winkelried Williams, Bolam, Milne, Green, McLatchie, and Norman Meachen joined in the discussion, and Dr. Norman Walker replied.

On July 30th, at a joint session of the Section of Dermatology and of the Naval and Military Section, Mr. McDonagh opened a discussion on syphilis. He maintained that the spirochæta was not the cause of syphilis, but only one phase in the development of the organism. Salvarsan was curative in early cases, but was useless in the later stages. He had seen chancres in which the spirochæte could not be found, and he now relied more upon clinical diagnosis than upon the finding of the organism. As to the Wassermann reaction, he did not regard a negative reaction as evidence of cure of the disease. It might be present in active syphilis, and a positive reaction might only indicate an increased power of protection. He detailed the method of treatment which he practised.

Lieutenant-Colonel Gibbard, R.A.M.C., and Major Harrison, R.A.M.C., gave an interesting summary of the results which they had obtained in the military hospital. The present question was not whether salvarsan was a specific remedy for syphilis, but rather how much and in what way it should be given to obtain the best results. When mercury and iodides were the only remedies in use the military hospitals were full of syphilis. At the present time out of 285 cases there were only nine in which there had been relapses. On several grounds the combined treatment of salvarsan with mercury was held to give the most successful results. As a routine measure three injections of salvarsan with ten of mercury were advocated. Where relapses occurred more vigorous treatment was indicated.

The following gentlemen joined in the discussion. Drs. Goodwin Tomkinson, Nixon, MacCormac, MacWalter, Lieut. Colonel Melville, R.A.M.C., and Dr. Crawford Treasure. Mr. McDonagh and Colonel Gibbard replied.

On July 31st papers were read by Dr. Goodwin Tomkinson on "Four cases of Lahore Sore," by Mr. McDonagh on the "Rationale of the Wassermann Reaction," by Dr. Winkelried Williams on "Keratodermia Blenorrhagica," by Dr. Haldin Davis on "Infantile Eczema," and by Dr. MacWalter on the "Use of Antimony in Syphilis."

In the Museum, Dr. Cranston Low exhibited a large number of beautiful models of cutaneous affections, and Dr. Haldin Davis showed series of colour photographs, and Mr. McDonagh preparations illustrating the "Life Cycle" of the organism of syphilis.

MANCHESTER DERMATOLOGICAL SOCIETY.

MEETING held Friday, July 3rd, Mr. SAVATARD in the chair.

Demonstration of cases:

Mr. SAVATARD showed: (1) *Lupus erythematosus* in a female, aged 14 years.

Family history: Father died from Bright's disease. Mother died from phthisis. One brother died from phthisis, aged 18, four years ago. One brother and five sisters alive and healthy. The lesions first made their appearance at the age of 11 years, appearing first on the bridge of the nose, from which situation they spread rapidly, and at the present date involve nearly the whole face. There are numerous discrete atrophic patches on the scalp. During the last twelve months the extensor aspect of the forearms and fingers have become affected.

There is well-marked tuberculous adenitis in the left cervical region.

(2) *Lupus erythematosus.*—The patient, a female, aged 42 years, gave the following history: Two years ago, one month before the birth of her last child, the disease commenced acutely on the bridge of the nose, the upper part of the face becoming quickly involved. Later the scalp was attacked, and during the last six months the mucous membrane of the nose, lips, palate and tonsils became involved. The parents are living and healthy; one sister died of phthisis; husband is well; her eldest child, aged 21 years, is suffering from phthisis. She has had thirteen children, of whom five are living.

(3) *Case for diagnosis.*—E. M—, female, aged 70 years, presented cream-coloured tumours the size of a pin's head, situated mainly on the lower eyelids. One on the forehead had ulcerated and simulated in appearance an early rodent ulcer.

The tumours were of many years' duration and probably congenital in origin. Sections of the lesion suggested that the growths arose from embryonic basal cells of the epidermis.

(4) *Lupus vulgaris* (*Sclerosus erythematoides, Leloir*).—A. P—, female, aged 27 years, presented a butterfly patch on the face and

several patches on the arms; the lesions were of a dusky bluish-red colour, which partly disappeared on pressure. The borders of the lesion are fairly sharply defined.

By diascopy, small miliary tubercles can be detected on the bridge of the nose. The patches show considerable infiltration. Small subcutaneous nodules can be felt, but not seen. These lesions first made their appearance twelve years ago just above the wrist on the extensor aspect of the left forearm, next on the forehead, cheeks and nose. The patient's general health is good, and no other tuberculous foci can be detected. There is no family history of tubercle. There is no reaction to tuberculin, but the lesions are absorbing under the treatment.

The exhibitor reminded the members of a similar case he showed some few years ago which had cleared up under tuberculin injections but had never shown any local reaction.

(5) *Parakeratosis variegata.*—The patient, a female, aged 50 years, presents lesions limited chiefly to the flexor aspects of both forearms. They, however, extend round the dorsum of hand to the interdigital spaces. They are bluish-red in colour with very fine branny desquamation over the affected area; the normal striæ of the skin are exaggerated. The more recent lesions are papular in character, resembling Lichen planus, but not showing the white striæ of that disease. There are irregular islands of normal skin included between the diseased areas, giving a general morbiliform appearance. There are no subjective symptoms. The affection commenced six months ago on the left arm, appearing on the right three months later.

The result of a biopsy and treatment by X-rays will be communicated at the next meeting of the Society.

(6) *Paget's disease.*—The patient, a female, aged 73 years, presented lesions typical of the condition. It originated at the left nipple twenty-five years ago, and now extended horizontally a distance 14 in. from beyond the left posterior axillary line to a point below the right breast. The maximum vertical diameter was 7 in. No malignant growth had appeared until two years ago, when a slow-growing epithelioma developed on the site of the original lesion. This appeared to be fairly superficial, and was 2½ in. in diameter. Much improvement had been produced by the use of X-rays (well screened).

Dr. Lancashire showed (1) *Erythema multiforme* in a male, aged 37 years. The eruption was situated on the arms, neck, and chest. The lesions on the neck had the appearance of a thick, band-like erythematous infiltration. On the arms the lesions were erythematous and urticarial in character. The eruption had developed during an attack of lymphangitis, affecting the left arm, secondary to a septic wound of the hand.

(2) A widespread typical attack of *Lichen planus* in a boy, aged 9 years.

(3) *Lupus erythematosus* in a girl, aged 10 years. The unusual features in this case were the age of the patient and the asymmetry of the eruption. The right cheek and nose were the only places involved. A year previously, whilst at the seaside, the patient had had a similar attack, which had cleared, leaving no atrophy. The lesion on the right cheek had commenced as an erythematous disc equal to a shilling in size. This had spread enormously after the application of some irritant by a chemist. When shown, the lesions were bright red, sharply circumscribed, erythematous patches, studded with plugged follicles.

(4) *Pityriasis rosea* in a boy, aged 12 years. The coloration was paler than is usual in this condition. A history of there having been a herald patch was given. The lesions were distributed thickly all over the trunk. The thighs only presented a few lesions.

Some members thought the eruption might be a seborrhœic dermatitis.

Dr. Dyson showed (1) a case of *Pemphigus vegetans*. The patient, a man, aged 38 years, had been shown in November, 1913, as a case for diagnosis. Since that date many of the lesions had disappeared under treatment, leaving apparently normal skin which was deeply pigmented. New lesions had, however, kept appearing, which rapidly became pustular and then quickly assumed a papillomatous character. The mucous membrane of the mouth has been affected, but is now better. At the present date the patient shows many deeply-pigmented skin areas, the sites of former lesions. On the feet and lower legs, in the groin, between the buttocks, on the scalp, in both axillæ, and at the left angle of the mouth a papillomatous tumour formation has taken place. These papillomatous excrescences are moist and have a foul-smelling discharge. On the legs and in the groin the lesions show a fairly sharply defined spreading margin, pustular in character. The blood-count shows an excess of leucocytes. The Wassermann reaction is negative. Cocci and short, rod-shaped bacilli have been found in the discharge. Dr. Staveley Dick, the pathologist to the hospital, has not been able to obtain a cultivation of this bacillus.

(2) *Tuberculous lymphangitis,* secondary to Lupus vulgaris of the left index finger. The patient, a female, aged 47 years, first came under observation in January, 1914. At that time she had Lupus vulgaris of the left index finger, hypertrophic in type. In April of this year the lymphatics became infected. There are old scars on the left knee, the result of an abscess in that region when a child. At the present date the patient, a robust-looking woman, shows typical Lupus vulgaris of the left index finger, and up the radial side of the same forearm a row of deep infiltrated masses situated in the hypoderm. These masses are purplish in colour and some of them are semi-fluctuating on examination. In the synovial sheaths of the flexor tendons of the wrist a dense infiltrated mass can be felt.

CURRENT LITERATURE.

TUBERCULIN THERAPY IN TUBERCULOSIS CUTIS, TUBERCULIDES AND ALLIED CONDITIONS: A PRELIMINARY REPORT. George M. Mackee, M.D. (*Journ. Cut. Dis.*, May. 1914, vol. xxxii, p. 366.)

This report is based on a series of observations carried out in Dr. Fordyce's clinic over a period of four years, the result of which, on the whole, were disappointing. Fifty-two cases were treated, consisting of: Lupus vulgaris (12); tuberculosis verrucosa cutis (3); tuberculosis of buccal mucosa (1); scrofuloderma (4); tuberculous adenitis (4); Bazin's disease (8); tuberculous dactylitis (2); papulo-necrotic tuberculide (12); Lupus erythematosus (6). No local or general measures were used, the only form of treatment employed being injections of the bacillus emulsion preparation of tuberculin, given every five to seven days until either the disease was cured or a reaction was noted at the site of injection, in the latter case treatment being suspended for a few weeks and then recommenced with smaller doses. The initial dose of the emulsion was always exceedingly small and slowly increased at each injection, the diluent used being sodium chloride 8 5, carbolic 5, distilled water to 1000.

Of the 12 cases of Lupus vulgaris, 1 recovered after eighteen months' treatment and has remained well for two and a half years; another has remained well for one and a half years; a third, after two years' treatment, has remained well for eight months; a fourth has markedly improved after eight months' treatment: and a fifth showed no improvement after a year's treatment. Four cases of ulcerating Lupus vulgaris failed to recover after two years' treatment. Three cases of Lupus vulgaris without ulceration recovered after eighteen to twenty months treatment and have remained well for a year.

The three cases of tuberculosis verrucosa cutis improved, but were not well after four, six, and nine months' treatment respectively.

The case of tuberculosis of the mucous membrane was not improved after a year's treatment.

The four cases of scrofuloderma and four of non-ulcerating tuberculous adenitis in children did not show marked improvement.

In the eight cases of Bazin's disease, every one recovered in from six to ten months of tuberculin treatment.

The twelve cases of papulo-necrotic tuberculides in adult females, all of which gave a positive von Pirquet reaction, did not respond to the treatment, even after two years' duration.

In the six cases of Lupus erythematosus no benefit was derived from the treatment.

The above shows that all cases of ulcerative tuberculosis of the skin and mucous membrane failed to react to the treatment while, with two exceptions all the cases of non-ulcerating Lupus vulgaris were cured. At first this was thought to be due to the activity of complicating organisms but the ulcerating cases failed equally to respond to a combination of tuberculin and mixed polyvalent stock vaccine.

J. M. H. M.

TINEA CAPITIS TROPICALIS IN THE ANGLO-EGYPTIAN SUDAN. Albert J. Chalmers, M.D., and Alexander Marshall. (*Journ. Trop. Med. and Hyg.*, September 1st, 1914, xvii, p. 257.)

The writers of this paper describe a form of ringworm of the scalp and glabrous skin occurring in the Anglo-Egyptian Sudan. The organism responsible for it is a species of trichophyton, which they regard as differing from those usually described, and which has been observed almost exclusively in Sudanese boys from ten to sixteen years of age. Clinically it appears on the scalp as whitish scaly patches, over which hairs are broken off about a millimetre above the surface. A microscopical examination of an affected hair soaked in potash shows the fungus to be of the endothrix variety, occurring in rows of spores inside the shaft of the hair.

It grows on most ordinary solid and liquid media. On Sabouraud's proof medium it produces a white growth with a knob-like centre on a white plateau, with or without two concentric rings and with a slight fringe. The writers propose to name this fungus the *Trichophyton Currii*, after Mr. James Currie, Director of Education in the Sudan.

J. M. H. M.

WHITE SPOT DISEASE. George M. Mackee and Fred. Wise. (*Journ. of Cut. Dis.*, xxxii, No. 9, September, 1914, p. 629.)

In this contribution the writers describe a case of so-called "white spot disease," which name was applied in 1903 by Johnston and Sherwell. A detailed review of different published cases is given.

The conclusions arrived at by the writers are as follows :

(1) They considered that all the recorded cases could be divided into two groups, namely, the Lichen planus group and the scleroderma group, and that their case belonged to the scleroderma group.

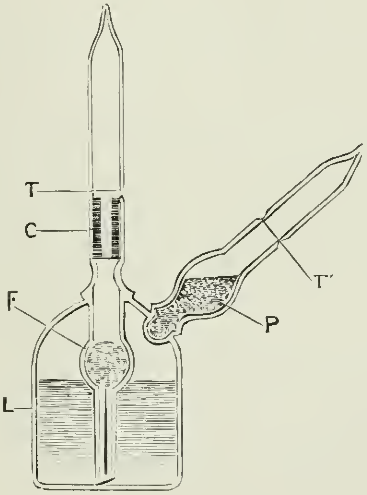
(2) They considered that there was no entity which could be called "white spot disease," but believed that the name should be retained to signify a special type of scleroderma occurring as white spots.

J. M. H. M.

NEW PREPARATIONS.

AMPSALVS.

THE apparatus shown in section in the illustration comprises a single ampoule of neutral glass, containing in separate compartments the dose of neo-salvarsan, and distilled water.



The "Novarsenobenzol" (Ehrlich's 914) is contained in the ampoule *P*, which has been hermetically sealed after having been freed from air.

It is claimed that it is better to keep the 914 in a vacuum rather than in nitrogen. Nitrogen invariably contains traces of oxygen, which tend to cause a change in the 914.

The body of the flask *L* contains fresh doubly-distilled and sterilised water. A filter tube *F*, sealed at its upper end, is immersed in the water to the bottom of the flask.

Method of employment.—The ampoule *P* is broken at the point *T* after having been incised by a file. The stylet supplied with the apparatus, having been sterilised by heat and then cooled, is introduced into the open tube and the ampoule broken in such a manner that all the 914 falls into the distilled water. The flask is then shaken. The Novarsenobenzol dissolves very rapidly. The vertical tube is now opened at *T*. Into the rubber cylinder which projects, the nozzle of a glass syringe having 10 c.c. capacity is introduced, and the fluid gently aspirated. The aseptic and filtered solution of 914 thus reaches the syringe directly. A few drops of fluid remain at the bottom of the flask and in the filter-tube, but this is allowed for in the quantity of 914 provided.

Ampsalvs are made in six sizes, the doses varying from 0·15 grm. to 0·9 grm. The apparatus affords a convenient method of using the drug in concentrated solution, and dispenses with the sterilisation necessary for more complicated methods of administration.

Supsalvs.

These stable suppositories containing "Arsenobenzol" (Ehrlich's 606) have been introduced by Prof. Bagrov for the rectal method of administration of 606. It is claimed that they give excellent results comparable with those obtained by the intravenous method, and are free from all risk.

Their success is explained by the observation of Levaditi: "If living treponemas be placed in a solution of Arsenobenzol (Ehrlich's 606) they continue to live in it. But if a trace of extract of liver be added to the mixture the treponemas are destroyed."

Dr. Sabouraud, *La Clinique* (April 13th, 1913), writes: "If 606 has to be taken up and transformed by the liver in order to become toxic to the treponema, there is no better mode of absorption of the drug than by way of the intestine, since all the veins of the intestines join the portal vein. If this be the case, no route could be more indirect and more unsatisfactory for active treatment than one that is not intestinal or not intravenous, *i. e.* pre-hepatic, since some of the drug must necessarily become fixed everywhere before its passage through the liver has activated it."

As a result of numerous clinical experiments Dr. Bagrov, of Moscow, recommends the rectal method of administration of 606.

Each suppository contains 0·10 grm. (1·5 gr.) of Arsenobenzol (606).

One suppository is administered every three days, preferably after the bowel has been cleansed by an enema.

Three series of six suppositories are administered with intervals of a fortnight between each series.

The Agents for United Kingdom, Colonies, and Dominions, are: M. Bresillon & Co., Gamage Buildings, Holborn, London, E.C.

THE BRITISH
JOURNAL OF DERMATOLOGY.
NOVEMBER, 1914.

NOTE ON TERMINOLOGY.

By S. E. DORE, M.D.,
Physician to the Skin-Department, Westminster Hospital.

He would be a bold man who attempted, single-handed, to revise dermatological nomenclature, or substitute a modern phraseology for many of the old and classical names, sanctified as they are by time and custom. And yet, from the student to whom it has always been a bug-bear, to the expert who stands helpless in face of the difficulties confronting him, there is certainly a desire for greater simplicity and co-ordination in dermatological terminology.

In this brief communication I shall only attempt to offer a few suggestions, in the hope that some future writer or committee better qualified to deal with the subject may amend or amplify them.

The results of modern pathological research are gradually supplying the deficiencies of an ætiological nosology and rendering many of the old terms obsolete. Sycosis, for instance, may or may not resemble the inside of a fig, but the name became superfluous when it was known that the two diseases included under this heading were caused by the *Staphylococcus pyogenes* and by a hyphomycetic fungus respectively. "Coccogenic sycosis" suggests, as a student remarked to me, a disease which breeds cocci rather than one bred by them, and the same argument applies to "phytogenic sycosis." "Staphylococcic folliculitis" is a good alternative, but "hyphomycetic folliculitis" unfortunately does not cover the whole ground of attack, and perhaps "tinea barbæ" or "trichophytosis barbæ" is better. With reference to ringworm, "ecto-endothrix" is an improvement on "endo-ectothrix," and "tinea marginata" on "eczema marginatum." "Pityriasis" versicolor has become "tinea" versicolor, but "versicolor" seems capable of improvement. "Pityriasis alba" or "simplex" has returned to us as the forerunner of a more exact definition of seborrhœa. "Pityriasis rubra" is in the melting-pot of "exfoliative dermatitis," and "dermatitis herpetiformis" shows signs of returning to its old allegiance and has become a "pemphigoid." "Acne rosacea" is fortunately dropping its cognomen, although "rosacea" can scarcely be regarded as a satisfactory substitute. "Acne agminata," as Dr. Pringle recently remarked, is neither acne nor agminate. Multiple benign cystic epithelioma, distinguished, as one author observes, by the number and length of its names, is the proud possessor of at least ten of these polysyllabic verbalisms; its last appearance as "tricho-epithelioma" has at least the semblance of pathological precision. "Rodent ulcer" is honoured by time and observance, and is useful as a means of distinction from its venerable relative cancer, but "basal-cell carcinoma," or might one shorten it to "baso-carcinoma," is a definite advance. Lupus and scrofulodermia should, in the view of some dermatologists, give way to "tuberculosis of the skin," although they would then lose their clinical distinctions. "Tuberculoma" and "syphiloma" or "syphiloderm" are less ambiguous than "tuberculide" and "syphilide." The term "syphilide" generally presupposes the presence of the spirochæte, that of "tuberculide" the absence of the tubercle bacillus. The discrepancy is obvious! "Erythema atrophicans," suggested several years ago by Sir Malcolm Morris, has many advantages over Lupus erythematosus. Eczema is defined in a well-known text-book as "the term commonly applied to any wet or scaly inflammation of the skin, of the cause or nature of which the observer is ignorant." Comment is unnecessary! Eczema, it is true, is being shorn of many of its satellites, but it will require a genius to displace the central figure. Whether a variety of eczema or not, "pompholyx" is more comprehensive than "cheiropompholyx," and less committal than "dysidrosis." "Nævus," formerly applied in this country to a single group of vascular growths, has now become a hydra-headed monster embracing in its tentacles all congenital localised overgrowths of the skin. "Congenitoma" might be suggested as an alternative, but such a hybrid would doubtless be anathema to the classical scholars. In concluding I cannot refrain from a passing reference to the "fools who rush in," and on this ground claim the indulgence of many who are better fitted to attack the thorny subject of "terminological inexactitudes" in dermatology.

SARCOMA OF THE SKIN, ETC., SECONDARY TO TUMOUR OF THE FOOT.

By J. H. SEQUEIRA, M.D., F.R.C.P., F.R.C.S.,
Physician to the Skin-Department, London Hospital; with

REPORT ON HISTOLOGY.

By HUBERT M. TURNBULL, M.D.,
Director of the Pathological Institute, London Hospital.

Cutaneous sarcomatosis is uncommon, and in the majority of cases reported there has been no evidence of a primary focus outside the skin. The case now to be described is of interest in that the seat of the primary growth was the tarsus. Another point worthy of note is the remarkable development of the tumours on the forehead, scalp, and face, the remaining sites being the upper jaw and the popliteal space.

Case History.

James L—, aged 41 years, a pale, somewhat emaciated man, was sent to the London Hospital on September 20th by Dr. Sydney Harper.

In June, 1914, the patient noticed an area of redness of the skin of the forehead. There was little swelling present at this time. Upon the supposition that the eruption was possibly of toxic origin, all the patient's teeth were removed by a dentist. A plate was made for him, and he wore it for a fortnight, and this made the gum and the upper jaw on the right side sore. Shortly after this soreness had developed a "lump" was noticed. At the same time the redness of the forehead increased and the surface became distinctly raised. The elevations were numerous small, pink, smooth, soft rounded tumours, clustered together "like a bunch of grapes" in the middle of the forehead. These tumours were first obvious when about the size of a small pea. They rapidly increased in size, and two large growths developed upon the scalp over the vertex above the lambdoid suture. Small pink soft growths also developed upon the cheeks. The distribution and general appearance of the forehead and cheek tumours are seen in the photograph taken soon after the patient's admission. In addition to these there were two soft tumours on the scalp rather larger than walnuts. On palpation the tumours felt soft and had a definite pseudo-fluctuation suggesting the consistency of over-ripe fruit. On puncture a glairy mucoid material with a little blood was removed. There were two tumours, apparently enlarged lymphatic glands, in the right popliteal space.

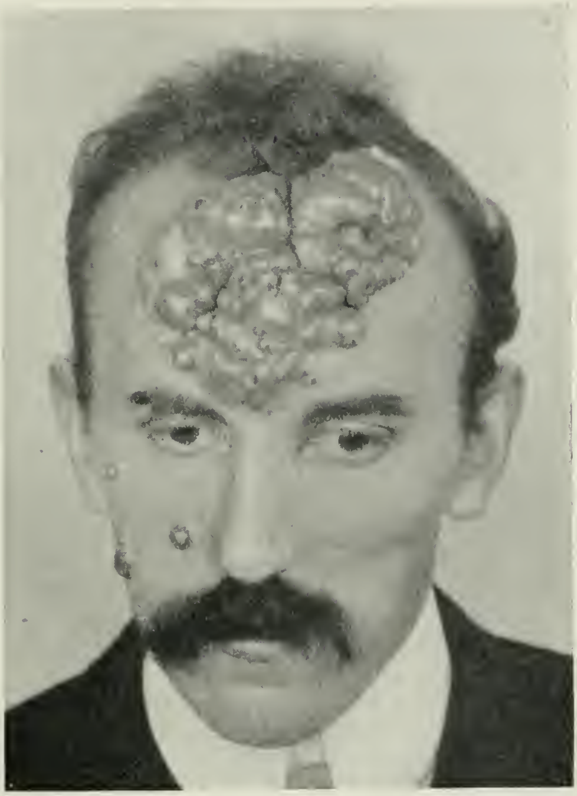
There was a red swelling about the size of a walnut attached to the upper jaw on the right side, opposite the position of the bicuspid tooth. This swelling was rather harder than the forehead tumours, but its surface was ulcerated and a sanious discharge exuded from it. The growth here was large enough to cause the definite protuberance of the cheek and lip noticeable in the photograph.

At first sight the growths might have been mistaken for the well-known endothelioma which is sometimes called "turban tumour." Portions of the growth were removed and sent to Dr. Turnbull for examination. He reported the growths to be secondary deposits from a chondro-sarcoma.

In view of this opinion, the fact that the patient's right foot had been amputated in 1910 at Westminster Hospital became of supreme importance. My clinical assistant, Dr. Alderton, communicated with the registrar at that institution, who very kindly furnished us with the following information :

Syne's amputation had been performed upon the right foot for an unusual swelling, which at first suggested tuberculosis. Portions of the soft material from the foot were examined in the clinical laboratory at Westminster Hospital, and the report made was : Sections show small fragments of bone, cartilage undergoing myxomatous change, small round cells, blood-clots, but no evidence of malignancy or tuberculosis.

It is interesting to note that there have been no symptoms suggesting involvement of any of the viscera. A radiograph has been made of the chest, and Mr. Gilbert Scott reports that there is a well-defined shadow on the left side, which appears to be a nodular secondary



TO ILLUSTRATE DR. J. H. SEQUEIRA'S CASE OF SARCOMA OF THE SKIN, ETC., SECONDARY TO TUMOUR OF THE FOOT.

tumour in the posterior mediastinum. There are, however, no signs of pulmonary disease. The examination of the blood gave the following results:

Red corpuscles	5,500,000	
Hæmoglobin	85	per cent.
Colour index	0·8	
White corpuscles	8000	
Differential count:		
Polymorph-neutrophiles	73	per cent.
,, eosinophiles	0	,,
Small lymphocytes	5	,,
Large ,,	13·5	,,
,, hyaline	8·0	,,
Coarsely granular basophiles	0·5	,,
	100·0	,,

In spite of vigorous treatment by massive doses of X-rays the tumours of the forehead, scalp, and cheek continue to increase. The growth in the mouth was removed by Mr. R. Warren by diathermy. The patient is steadily losing ground, and has determined to leave the hospital for his home, so that there will be no further opportunity for further investigation of the case.

Report on the Histological Examination by Dr. Turnbull.

Macroscopic.—A portion of tissue, one surface of which is covered with skin and measures 0·7 by 0·5 cm. Its greatest depth is 0·25 cm. The greater part of the outer surface is occupied by a papule. On section the papule corresponds to a nodule of pink glistening tissue lying beneath the epidermis. Both segments embedded in paraffin.

Microscopic.—Both sections consist of a small piece of horny skin, in which there are a few sebaceous glands and hair follicles. In the dermis, at a little distance beneath the epidermis, is a segment of a rounded nodule. The nodule is surrounded by a capsule of collagenous tissue, which is denser than the rest of the dermis, and contains no elastic fibres. Trabeculæ pass in places from this capsule and divide the whole incompletely into rounded lobules. There are a few capillaries within, or at the side of, the trabeculæ. The lobules have a mucoid matrix. In this matrix lie polygonal, round, and, less commonly, spindle and stellate cells. The spindle and the stellate cells lie in the periphery of the lobules. The round and polygonal cells lie at a considerable distance from one another; they have a relatively abundant, spongy protoplasm, and a small, deeply stained nucleus. In several cells there are two nuclei. Occasionally two cells lie together, their opposed surfaces being compressed. The tissue, therefore, resembles mucoid cartilage, although pericellular capsules, the characteristic of cartilage, are not present. The capsule round the nodule is evidently perichondrium.

The dermis contains, therefore, portions of nodular masses of mucoid, atypical cartilage. These are, doubtless, secondary deposits from a chondro-sarcoma.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held October 15th, 1914, Dr. J. J. Pringle, President of the Section, in the chair.

Dr. E. G. Graham Little showed a case of *chronic septic papillomata.* The patient was a lady, aged 65 years, who had been for some six years under the care of Dr. Francis Nunn, to whose kindness the exhibitor was indebted for permission to show the case. The history confirmed by this gentleman was that during the past six years there had been continually present upon a restricted area, triangular in shape and situated upon the outer half of the right breast, a number of soft, non-pigmented warts, which were always covered with a thick roof of inspissated discharge, very like the condition seen in so-called gonorrhœal warts. These tops could be easily detached, leaving a moist and oozing surface at the summit of the underlying wart. There was constantly friable detritus covering the area, and a good deal of offensive discharge from the interstices of the individual warts. These were very numerous and, in fact, covered the outer half of the breast. The patient said that on the area now occupied by these growths there had been a "birth-mark" of the nature of a pigmented flat mole, about the size of a sixpence, on which about twelve years ago the earliest warty tumours had developed. There were no subjective sensations connected with them, and she absolutely refused any operative measure. The right axilla was quite free of any glandular enlargement. There was no history of syphilis or gonorrhœa. She was in fair general health, but had recently lost some weight. There were no warty growths anywhere else, and there had never been any ulceration or excessive bleeding from the affected part. Some of the warts had been scraped, but tended to recur *in sitû*. Occasionally there was complete spontaneous involution of the growth, leaving a perfectly normal surface.

Dr. W. KNOWSLEY SIBLEY showed a case of *lymphatic leukæmia* in a boy, aged 16 years, which will be published in full in the next issue of the Journal.

Mr. MCDONAGH said he saw the case at the meeting of the Pathological Committee. He would like to draw attention to the fact that the rash on the upper part of the thigh was confluent, and not so discrete as on the trunk, and less papular. The thigh rash was very much like a generalised skin-eruption, which he had seen only in Jews from Poland and Galicia. This eruption was always followed later by a pronounced enlargement of the lymphatic glands in the groins, and the enlargement gradually spread to all the other lymphatic glands in the body. Finally the patient developed leukæmia and died. He regarded the above condition and that of the case shown as identical, differing only in the fact that the case presented was severer and more acute. In his opinion the diagnosis was leukæmic cutaneous lymphocytoma.

Dr. F. PARKES WEBER considered that the differential blood count was a very remarkable one, and suggested that an ordinary, in addition to the differential, count should be made. It was a remarkable differential count, even for lymphatic leukæmia. If the cutaneous condition were still more advanced than it was at present, and if the nodules were to become confluent, the patient's face would present the typical "leonine" appearance which had been described as one form of pre-mycotic skin condition in Granuloma fungoides. He (Dr. Weber) had once seen a man with a "leonine" face of that kind, and the case turned out to be one of leukæmia. He thought the cases described by Kaposi under the heading of *Lymphodermia perniciosa* were examples of leukæmia in which the "leonine" or "pseudo-leprous" type of Granuloma fungoides was simulated; but at one time it was supposed that Kaposi's Lymphodermia perniciosa was merely an occasional pre-mycotic stage in Granuloma fungoides, though Kaposi himself had laid stress on the ultimate occurrence of associated morphological blood changes.

Dr. J. J. PRINGLE showed a case of a *Lichenous eruption for diagnosis*. The patient was a married woman, aged 57 years, who was admitted to the skin wards of the Middlesex Hospital on September

28th. Her family and personal history were unimportant. She had never previously had any skin-affection. Before the appearance of the eruption on June 22nd she had been dyspeptic and out of sorts for some weeks. On that date an irritable patch appeared on the right cheek and spread over the face. Soon afterwards there was great burning, with redness and swelling of the arms, forearms, and hands, and subsequently of the thighs, legs, and feet. These intense inflammatory phenomena had greatly diminished since her admission to the hospital, but the cardinal features of her disease persisted. The essential lesions were in great abundance and best seen over the neck and upper parts of the back and chest. They consisted of innumerable papules of both plane and acuminate type, occurring discretely as well as in groups and composite patches of the most variegated patterns. The plane papules were flat, polygonal, shiny, of characteristic colour, and with striations and central cells, while the acuminate papules were capped with fairly firmly adherent thick epidermic scales. The chief changes which had occurred under observation consisted in the detachment of the epidermic caps from the acuminate lesions, and in the increased scaliness of the plane lesions, which had coalesced in many places, thus forming plaques almost as heavily squamed as patches of psoriasis. Over the face there was a quite indiscriminate diffuse but patchy erythema with some desquamation. The scalp, which was quite normal on admission to hospital, had become somewhat pityriasic in the last week. No change in the buccal mucous membrane which could be recognised as lichenoid was present. The arms, forearms, hands, thighs, legs, and feet were the seat of diffuse dry dermatitis without any appreciable degree of infiltration. There was very marked desquamation of the soles with fissuring, and a similar condition had been present on the palms. No history of special involvement of the backs of the proximal phalanges of the fingers could be elicited. The desquamation over the limbs generally was fine, but over both legs the epidermis separated in large papery sheets, disclosing a dry surface underneath. The nails both of hands and feet were unaffected. The patient's general condition was good, the urine normal, and the Wassermann reaction negative.

The treatment adopted had been permanent rest in bed, salicin in full doses internally, and salicylated oil externally.

The case had been brought for diagnosis as different views had been expressed on the subject. Was it (1) a Pityriasis rubra pilaris or (2) Lichen ruber planus with an unusual predominance of the acuminate follicular papule? Points in favour of the former hypothesis which he had adopted were: (*a*) The large number of scale-topped acuminate papules; (*b*) the severe involvement of the palms and soles; (*c*) the absence of lesions on mucous membrane; (*d*) the papery, thin sheets of desquamation on the legs; (*e*) the *début* of the eruption on the face and its subsequent appearance on the scalp, although to a mild degree; (*f*) the absence of conglomerate plaques with the typical colour and characteristics of Lichen planus. Nevertheless the presence of a large number of primary lesions indistinguishable clinically from those of Lichen planus—and maintaining their distinctive characters throughout—suggested the possible co-existence of the two diseases, generally considered as being distinct, but potentially due to a common exciting toxic cause, the precise nature of which is quite unknown.

The exhibitor had seen two, if not three, examples of a similar association in private in the last two years, the cases being practically identical with that shown. Both occurred in women of middle age, and both ran a favourable course, lasting about six months before perfect recovery ensued.

Dr. J. H. SEQUEIRA said that during the last three months he had had under his care a case which began in a similar manner. The patient, a middle-aged woman, was sent to him by Dr. Vilvandré. When first seen she had an acute erythematous eruption on the face and hands, which rapidly became general. He took her into hospital for a time, and gradually the erythrodermia subsided and she was now a typical case of Lichen planus.

Dr. ADAMSON regarded the case as a typical Pityriasis rubra pilaris, typical in all respects except for the absence of follicular papules from the backs of the fingers. The case bore some resemblance to an acute Lichen planus, and thus recalled the old controversy as to the relationships of Pityriasis rubra pilaris of Devergie and Besner, Lichen rubra acuminatus of Hebra or Kaposi, and Lichen planus of Wilson. It had been finally settled towards the end of the last century that Pityriasis rubra pilaris or Lichen ruber acuminatus were identical affections and distinct from Lichen planus, and he felt it would be going back to the old confusion to call this case a combination of Pityriasis rubra pilaris and Lichen planus. The resemblance of the individual papules of Pityriasis pilaris to the flat-topped, shiny papules of Lichen planus was only apparent, and there was no histological resemblance. In the speaker's opinion, Pityriasis rubra pilaris had more affinity with psoriasis, and he had published several cases in which patients had Pityriasis rubra pilaris and psoriasis alternating, or in which the two affections occurred in one family. It was interesting to recall that the first recorded example of Pityriasis rubra pilaris was a case observed in this country, in St. Bartholomew's Hospital, in 1828, by Dr. Tarral; that it was communicated by Tarral to Rayer, who described it as a general psoriasis; and that is was subsequently quoted by Devergie as an example of his new disease Pityriasis pilaris.

Dr. MacLeod regarded the case as one of Pityriasis rubra pilaris and considered that an important point of diagnostic value against generalised Lichen planus was the presence of well-defined clear areas in the midst of the eruption.

The President (Dr. J. J. Pringle), in reply, said he thought his remarks scarcely warranted the construction put upon them by Dr. Adamson, as he had enumerated six reasons in support of his personal opinion that the case was a Pityriasis rubra pilaris. He had brought the case forward as one "for diagnosis" only in the hope of stimulating discussion; and he had been rewarded by eliciting the opinion in more than one quarter that the case was a Lichen planus. In watching its evolution while in hospital he had observed that the primary eruption elements were both and equally typically "plane" and "acuminate." Nor in their involution had any of the "acuminate" lesions become "plane." On the other hand, no purplish, pigmented, conglomerate plaques, so characteristic of Lichen planus, had formed. The case was, indeed, identical with those he remembered under Hebra and Kaposi in Vienna nearly forty years ago, which had given rise to immense confusion. It was only at the first International Congress held in Paris in 1899 that it was decided, to the satisfaction of a large majority of members, that many cases at least of the condition described by Hebra as Lichen ruber acuminatus were identical with the Pityriasis rubra pilaris of Devergie, and were therefore clearly distinct on clinical and pathological grounds from other diseases included under the term Lichen rubra by the Vienna school.

Dr. J. H. Sequeira showed a *case of sarcoid*. The patient, a married woman, aged 43 years, had enjoyed good health with the exception of two attacks of quinsy in her adolescence. She had five children alive and in good health: one died when aged 12 months in convulsions, and she had had one stillborn child seven years ago. There was no history or evidence suggesting syphilis, and the Wassermann reaction was negative. There had been no glandular swellings or other sign of tuberculosis.

In March, 1912, the patient felt a small lump about the size of a pea in the middle of the chin. A month or six weeks later a dark red patch appeared on the chin over this lump. This slowly increased, and in September, 1912, she consulted a medical man, who thought the lesion was probably a cyst. She was advised to leave the tumour alone unless it became inflamed. In January, 1913, a similar smaller lump appeared to the left of the former lesion, and since then the growths have been slowly increasing.

In the middle of the lower portion of the chin was a lobulated mass apparently connected with the skin. The colour was purplish-red and the surface was smooth. The tumour on palpation felt like an irregular flat plate in the skin. It was freely movable over the deeper tissues. In March, 1913, it was the size of a florin, but when shown it was one-third larger, and of a generally oval shape, though the edge presented distinct lobulation. To the left and above this lesion there was a similar lesion rather larger than a sixpenny-piece.

A portion of the tumour was excised and was reported by Dr. Turnbull to be a granulomatous infiltration of the skin. The lesion was obviously inflammatory, and there were a few giant cells in the section. There were no tubercle bacilli present.

Dr. Sequeira had ventured to class the condition as a sarcoid. This name had been applied to several conditions. Darier and Roussy* described under this appellation chronic indolent neoplasms in the hypoderm, the lesions having no tendency to ulceration. They occur most often in females aged between 30 and 40. They vary in size from a pea to a nut and are often in nodular patches. As a rule, they occur on the chest, but may appear anywhere. Giant cells and lymphocytes are found in sections. Other lesions have a fibrous capsule. Tubercle bacilli have not been demonstrated. Boeck's multiple benign sarcoid, on the other hand, is of two varieties: (1) A small nodular type, where the lesions vary in size from a millet-seed to a pea. A case called "tuberculides" but believed to be of this type was shown by the exhibitor.† (2) A nodular type in which the lesions may be as large as a small nut. The swellings have a purplish tint and occur in two, three or a dozen discrete tumours on the forehead, neck, shoulders, limbs, etc.‡ (3) The case shown appeared to be more closely related to the second type described by Boeck, as the nodules were definitely intradermic.

So far treatment had been unsatisfactory.

The PRESIDENT said he had no alternative diagnosis to offer, though "sarcoid" might not be regarded as a quite satisfactory pronouncement nowadays. He thought the localisation of the lesion was very unusual; he had usually seen "sarcoids" on the limbs and trunk.

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* *Archives de Méd. exper. et d'Anat. path.*, 1906, xviii, pp. 1–50.

† *Brit. Journ. Derm.*, 1910, xxii, p. 60.

‡ C. Boeck, *Archiv f. Derm. u. Syph.*, 1905, lxxiii, pp. 71, 301.

Dr. J. H. SEQUEIRA also showed a case of *sarcoma of the skin, etc., secondary to tumour of the foot,* described on p. 411.

Dr. MIDELTON said he understood the patient was given a toothplate to wear before his gums had settled down after the extractions, and he wished to protest against that course, of which he saw a good deal in general practice.

Dr. H. C. SAMUEL showed a *case of* (?) *Xeroderma pigmentosum* (*anomalous type*) *:* (*? sun dermatitis*). The patient was a man, aged 39 years, who has never been abroad, who consulted him last April. The following is a brief summary: The condition began over three years ago "with small red spots which seemed below the skin; it commenced in the region of the chin and lower lip. This spread by degrees and in about eighteen months attained its present size." He has no recollection of any sign of pustulation or irritation in the situations affected, so that a preceding sycosis may be excluded. Just before the condition began he received a very severe shock and had the misfortune to lose two children in a fortnight; he personally puts the condition down to that cause. Before consulting Dr. Samuel he had been treated by medicine and ointment for fifteen months. His doctor had the courage to promise him a cure, the non-fulfilment of which brought him under Dr. Samuel's care. He has never had any X-ray treatment or any other form of light treatment. He volunteers the statement (without any leading question) that *wind and sun* exposure very much aggravate the condition. There is no familial disease, and no members of his family have suffered similarly. Two of his children died of whooping-cough. He has one living child quite healthy, now aged 2½ years.

The area occupied by the condition corresponds to the beard region; the upper margin on both sides is bounded by a line drawn from the angle of the mouth to the malar eminence and then along margin of hairy scalp to the ear. Below the boundary runs horizontally outwards from the lower margin of the thyroid cartilage to a line drawn vertically from posterior margin of helix on right side and from centre of meatus on left side. The skin of this area is thin, atrophic, and either dead white in colour or stained with brown pigment spots. The whole area is covered with well-marked dilated capillaries most marked in lower part of patch on neck. The mucous membrane of lips are affected; there is nothing obvious inside the mouth. The areas affected are almost entirely devoid of hair.

The condition reminded Dr. Samuel of radio-dermatitis when he was first consulted. The area affected is one which is most exposed to light, and it is sharply limited below by the upper margin of the collar, and the most shaded parts of the face have escaped. It thus suggests the importance in this case of the ætiological factor of the light rays, but that there must be some very potent other factor underlying the condition is of course obvious. Why does his skin suddenly show this peculiar reaction to the sun's rays ? Dr. Samuel had the advantage of Dr. Gray's opinion of this case. Accepting Dr. Gray's original view (Dr. Samuel was not sure whether he still maintains that opinion) the exhibitor regarded the case as possibly a rare type of Xeroderma pigmentosum (Kaposi's disease), but in many ways it differs, to his mind, from the cases as usually seen or described. Dr. Samuel had never heard of the condition starting so late (although he had just discovered that Schwimmer reported a case beginning at the age of thirty-five. He did not know whether that was correct, but if so, it was the only case he knew). In this patient it began at the age of thirty-six. As is well known, the majority of cases begin in infancy, and very exceptionally as late as the sixteenth year. This case differs from Xeroderma pigmentosum also in the sequence of events. In this case what apparently takes place is firstly the development of telangectases followed by atrophy and then by a few scattered pigmented spots, the older the lesion the more atrophic and white is the area.

In Xeroderma pigmentosum, as described by Kaposi and others, what seems to be the first thing noticed is a number of lentiginous spots not unlike freckles, worse in summer and tending to improve in winter, recurring the following summer (no such history was obtainable in this case), and not only is the face affected but sometimes the scalp, neck, shoulders, hands and forearms (in this case the face *alone* is affected). The next event in Kaposi's disease is the development of telangiectases, and then atrophic white spots irregularly scattered are added subsequently. Sooner or later some of the pigmented spots take on malignant change, an excellent example of which was shown by the President last session.* In this case no similar condition is to be noted in the family, and although not a *sine qua non*, yet it is often a family disease. Norman Walker quotes a case where a couple who by former spouses had had normal children, yet all the daughters of their union had Xeroderma pigmentosum. Although the above is Kaposi's original description of the sequence of events, Duhring and others consider there is no particular order, so that the condition here is not necessarily inconsistent with that disease.

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* *Proceedings Roy. Soc. Medicine*, 1914, vii, pp. 149–154.

The atrophic stage of scleroderma is to be considered, but the site, distribution, history, and other features of the case negative that diagnosis. Could the case be one of idiopathic atrophy of the skin excited by the sun's ultra-violet rays, and not connected at all with Kaposi's disease ?

Dr. Samuel asked for any expressions of opinion as regards diagnosis, prognosis, and ætiology. Do the members consider the shock following the loss of his two children could have played the prominent part assigned by the patient himself ? From the patient's view-point, of course, he (the exhibitor) asked for views as to the treatment and prognosis. Do the members think that the tendency to malignant change is as great or is to be feared with as much anxiety as is usually associated with ordinary frank Melanosis lenticularis progressiva (of Pick) ? What hope, if any, do they consider exists of the skin becoming more normal in character ?

Dr. ADAMSON said he felt convinced that the condition was X-ray dermatitis, the result of a treatment for removal of the beard. It was comprehensible that the patient should decline to admit having undergone that treatment for such a purpose. The area of dermatitis and of long hair had a sharp margin, and the distribution under the chin was obviously not the result of sunburn.

Dr. SIBLEY also thought at first sight that it was X-ray dermatitis, but recently he saw, at hospital, a man in middle life who came with dermatitis of X-ray type on the backs of both hands, telangiectases and warty conditions, which had been there for ten years. The warts came off from time to time, leaving ulcers; and then they came back again. The man had been a stonemason in South Africa, where he worked all day in the sun chipping marble. During that time his hands were constantly covered with marble dust. A brother of his had been working with him in the same line and was stated to have much the same condition, and the patient promised to send him to the hospital, but had not done so. The patient had now been in England five years, and the condition remained stationary. He had wondered whether the sun's rays acting on the skin through its covering of marble dust produced a chemical irritating action—*i. e.*, a dermatitis indistinguishable from that caused by X-rays. Years before, the man said his face was very sensitive, and peeled with very little exposure.

Dr. GRAY said that possibly Dr. Adamson was right concerning the case, but he (Dr. Gray) admitted that he believed the patient when he said he had had no

X-rays, and he thought the explanation advanced by Mr. Samuel was the only alternative. When employing the term "Xeroderma pigmentosum," he did not intend to imply that this case would run the same sort of course as that of Kaposi's disease, but he had regarded all these types of cases as due to the sun's rays plus some other factor, the nature of which was at present unknown.

Dr. MacLeod said he did not consider that the case was one of chronic solar dermatitis, as the area affected was too clearly defined and avoided such parts as the ears and nose.

Dr. J. H. Sequeira said that when he first saw the case he thought of X-ray dermatitis, on account of the definitely limited area, which extended under the chin. Telangiectases and the tendency to warty growths occurred in so-called "tropical skin." But this case did not look like that.

Dr. A. Eddowes asked whether it would not be possible for the patient to damage the skin, without the application of X-rays, by using depilatories in excess, and so render the skin liable to dermatitis from ordinary exposure to weather.

The President said the case was a very puzzling one. Personally, he could not relegate it to the category of Xerodermia pigmentosa, even to the senile form which had been described. The most important paper on that subject which he remembered was by Falcao, of Lisbon, which was read at the Third International Congress of Dermatology in 1896, and in which a considerable number of cases was described as occurring in old age, these following fairly closely the course of ordinary Xerodermia pigmentosa. Mr. Samuel had advanced his diagnosis with great hesitation, and ought not to be pinned down to it too firmly. He (the President) had tried hard to accept the patient's statement that he had never been exposed to X-rays; but his diagnosis, based upon the objective characters of the condition, coincided with Dr. Adamson's. The distribution of the disease was not that of ordinary solar dermatitis, while it accurately corresponded with the area of an X-ray beard depilation. Possibly the mentality of the patient was that of the hysteric, whose motives for action and powers of concealment were often incomprehensible.

Dr. S. Ernest Dore showed a case of *multiple soft fibromata*. Patient, a boy, aged 17 years. There were numerous lesions, of about nine years' duration, varying in size from a pin's head to a cherry, scattered irregularly over the trunk. The majority were small soft sacculated hemispherical tumours of a brownish colour, but some had a slightly bluish tint, and there was also a large soft lobulated mass on the nape of the neck. In addition to the above a growth the size of a large pea had recently been excised from the centre of the dorsal surface of the tongue. A few of the tumours had disappeared spontaneously, leaving small cavities which could be felt by the finger. There were no nervous phenomena and no pain or tenderness, and the tumours did not appear to be attached to nerve trunks or situated along the course of nerves. On the right side of the neck, however, there was an oval patch of pigmentation which had at first sight escaped notice. The exhibitor asked if this case should be included in the category of Recklinghausen's disease, and whether, seeing that the tumours were localised and in many cases congenital overgrowths of the skin, the case could not be classified as a systematised nævus, according to that definition of the term. He ventured to think that the grouping together of such diverse conditions as angioma, Nævus linearis, leiomyoma, lymphangioma, etc., as nævi could only lead to confusion.

Mr. McDonagh said he considered the condition was a case of neuro-fibromatosis, or what was sometimes called von Recklinghausen's disease. The points in favour of that view were, the bluish appearance of some of the lesions, the sacculation of those and the pit to be felt on pressure. Because the lesions appeared to be scattered anywhere on the body it did not follow that they were not arising in nerves, since several nerves might be affected. It was more common for several nerves to be affected than for several lesions to occur in the course of one or more nerves. The lesions usually commenced in the endoneurium of the cutaneous nerves, and it was only when the lesion had reached a certain size that the nerve fibres were destroyed. Degeneration of the newly-formed fibrous tissue generally occurred, and this accounted for the sacculation and depression left by some of the lesions.

Dr. F. Parkes Weber said it was surely a question of terminology. The present case was one of molluscous fibromata, and whether all cases of molluscous fibromata were included in Recklinghausen's disease depended on one's definition. In "complete" examples of Recklinghausen's disease, according to the original description, there must also be deeper tumours, probably connected with the nerves, and patches of pigmentation about the skin like that on the right side of this patient's neck. This boy presented only two of these three elements. Dr. Weber, however, considered that cases of molluscous fibromata ought to be regarded as *incomplete cases* of Recklinghausen's disease. Patches of cutaneous pigmentation similar to those which occurred in Recklinghausen's disease were common in persons who had no other sign of anything abnormal, and had then to be regarded as the simplest (most superficial) form of cutaneous pigment-nævus. Dr. Weber very frequently came across such patches of superficial cutaneous pigment-nævus (exactly resembling the cutaneous pigmentation of Recklinghausen's disease) on the trunk or limbs of patients suffering from all kinds of diseases. On inquiry, these patches were generally said to have been present from infancy or childhood.

The President said it was a question of nomenclature, pure and simple. If cases such as the present were to be accepted as instances of von Recklinghausen's disease, then the term "Molluscum fibrosum" must disappear from the nomenclature.

Dr. H. G. Adamson showed a case of *subcutaneous fibrous nodules on the face and hands for diagnosis.* The patient, B. W—, a fruit warehouseman, aged 39 years, had a nodular condition of the upper part of the face which recalled the appearance of leprosy. But he had never been abroad, and on palpation the nodules were found to be very firm, apparently subcutaneous, and situated over bony enlargements, and there was no redness of the skin. The nodes were symmetrically arranged and were situated around the orbit and at the sides of the bridge of the nose. At the outer extremities of the superciliary ridges and over the upper arm of the malar bone there appeared to be bony prominences beneath the nodular thickening of the subcutaneous thickening, and the nasal bone on either side was so much thickened that it gave the appearance of the tropical disease, goundou. The swellings at the side of the nose had begun three months ago, and the other swellings had gradually followed. On the backs of the first and second fingers and of the thumb of each hand were a few subcutaneous nodules recalling rheumatic nodules, except that they were rather more fixed in the skin. There was a considerable thickening of the skin of the back of the neck at the level of the lower margin of the scalp.

The patient had had pleurisy, but never rheumatism or rheumatic pains. He had had bad headaches since the swellings first appeared.

A nodule removed from one finger felt very hard when cut into, and macroscopically had the appearance of fibrous tissue. Microscopically it was found to consist of a dense fibrous tissue, with small infiltrations of lymphoid cells around the blood-vessels of the upper part of the corium.

The PRESIDENT said the case presented some points of resemblance to Erythema diutinum, especially the lesions about the hands and fingers; and the microscopical appearances were apparently similar. The involvement of bone, however, introduced a new and inexplicable factor. He hoped Dr. Adamson would bring the case again.

Dr. F. PARKES WEBER said he regarded the nose enlargement as osseous. The condition occurred in the tropics,* but it also was met with in Europe. He regarded it as a form of Leontiasis ossea (possibly allied to "Osteitis fibrosa.")

Dr. H. G. ADAMSON also showed a case of *Lupus exuberans with*

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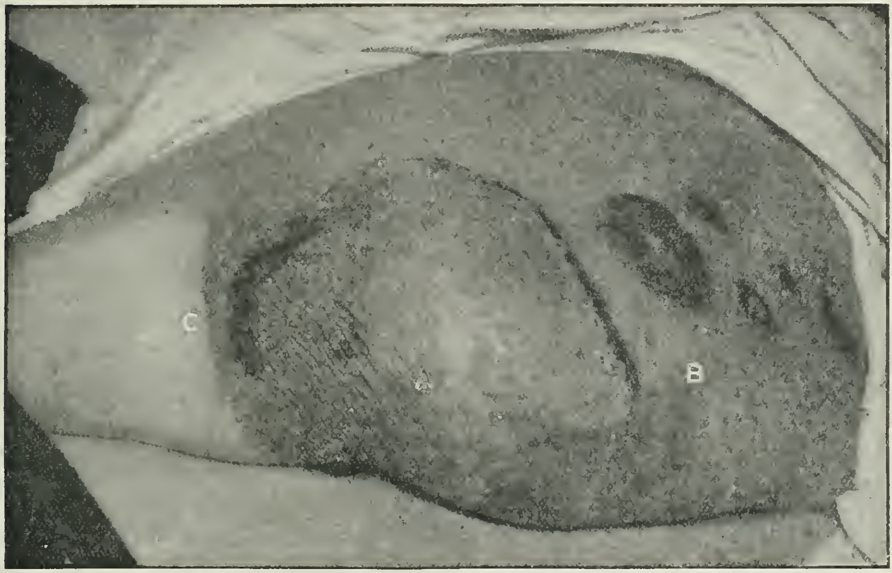
* See the description of "goundou" or "anakhra" in Sir Patrick Manson's *Tropical Diseases*, 5th ed., 1914, p. 888. In regard to the fibrous nodules on the fingers in the same case, Sir J. Hutchinson's remarks may be referred to, *Edinburgh Med. Journ.*, March, 1897, p. 283.

miliary lupus. A. H—, aged 31 years, a stoutish, heavy woman, unmarried, presented on the left buttock a large circular sharply bordered area, of dense plate-like infiltration, which measured 14 in. across and occupied the greater part of the buttock. The central part of the infiltration was scarred; the outer part was dusky-red and flatly nodular; the extreme margin was ulcerated in the form of a narrow, crenated fossa, with here and there crusting. Beyond the main mass of infiltration the buttock and adjacent part of the thigh seemed firmer and harder than normal, and very numerous reddish-brown hemp-seed-sized nodules embedded in the skin were scattered over this area. The patient stated that the condition had been present only seven months. There was a large scar on the left knee which she said was the remains of a similar patch which had been present seven years ago, and which had been cured by the application of an ointment during several years. The exhibitor's first diagnosis had been that of tertiary syphilis, which he had based on the short history, the scar of former healed lesions on the knee, the punched-out, ulcerated edge of the infiltration. The Wassermann reaction was negative, and treatment by mercury and potassium iodide had no effect. Three weekly doses of neo-salvarsan (0·6 grm.) were also given without any improvement. The diagnosis of lupus now offered was probably the correct one. This was supported by a strongly marked cuti-reaction to tuberculin and by the microscopical sections (exhibited) of the lesion, which showed numerous large giant cells characteristic of lupus and unlike those found in syphilides.

Noteworthy features of the condition were: (1) The very rapid, almost sudden onset; (2) the numerous miliary nodules beyond the main infiltration, set in an area which showed evidences of general cellulitis; (3) recurrent attacks of redness and swelling of the buttock and thigh, which had been noted while the patient had been under observation. The first attack occurred eight days after the third injection of neo-salvarsan, with sudden pain in the left thigh and the appearance of a wide band of erythema extending right across the buttock in an obliquely downward direction. On the erythematous area were two patches of superficial vesication, and it was thought that this eruption might be an arsenical herpes; but one month later, after the patient had taken 1½ dr. of potassium iodide daily for three weeks, there was another sudden attack of erythema, which this time involved the whole of the buttock and upper part of the thigh and was separated from the normal skin by a sharply defined margin. The first attack was accompanied by sickness and headache, and the second by diarrhœa and vomiting and a slight rise of temperature (99·6° F.). It seemed probable that these two attacks of "erythema" were analogous to those which occur in connection with leontiasis of the face and elephantiasis of the leg, when these two conditions were associated with lupus of those parts. The whole condition just described appeared to result from a rapid local invasion of the lymphatics by the tubercle bacillus, and the nodular infiltration, the scattered miliary nodules, and the recurrent erythema were the reactions to this massive invasion.



Lupus exuberans, with miliary lupus and recurrent cellulitis. Photograph showing left buttock and thigh with: A, the main infiltrated mass with ulcerated and crusted margin; B, miliary lesions; C, the margin of the exudative erythema, which involved the whole area occupied by the larger infiltrations and by the miliary lesions.

The case recalled one type of miliary lupus described by Kaposi which should not be confused with the more general infection, multiple lupus, which had also been called miliary lupus.

Dr. A. **Eddowes** said he had had a similar case, in which the whole buttock on one side was affected. His patient was very broken down in health, and had lupus in other parts of the body also. The lupus process seemed to flourish better on the buttock than anywhere else. He divided the areas involved into three sections, and injected different salts of mercury into them, and all the areas did uniformly well. He suggested the local injection of mercury in this case, dressing externally with the yellow oxide of mercury ointment.

Dr. J. H. Sequeira said it was difficult to treat these rapidly spreading cases of tubercle, and it was a question whether it would not be worth while to try tuberculin, though he did not expect much benefit from it. In chronic cases he had discarded its use.

Dr. Adamson replied that his experience had been so bad with tuberculin that he determined not to use it again. In whatever doses he employed it, all the cases had eventually gone to the bad.

Dr. George Pernet showed *cultures of favus*. These cultures from the two cases of favus (mother and child) brought before the Section in June last[*] were made by Dr. Elworthy, Pathologist to the West London Hospital, to whom Dr. Pernet was indebted for the trouble he had taken in the matter. The cultures were as follows: (1) On Sabouraud's maltose agar; (2) glycerine agar (+ 10 Eyre); and also on (3) glycerine broth (+ 10 Eyre). The last named was of special interest; it was flocculent, white, and anemone-like.

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[*] Pernet, *Brit. Journ. Derm.*, 1914, xxvi, pp. 324, 325.

Dr. George Pernet also showed *cultures* (*Trichophyton sulphureum*) *from a case of Tinea circinata.* These cultures were also made by Dr. Elworthy. They were pale yellow (on Sabouraud's maltose agar). The patient was a girl, aged 9 years, who attended the West London Hospital on July 17th, 1914, for a large circinate ringworm on the left wrist. The circinate lesions tended to form inchoate circles within the outer ring, which measured about 3 in. in diameter. There was no history obtainable of contact with animals. The fungus demonstrated at the time was made up of long branching mycelium. Dr. Pernet had found in his notes a case of Tinea cruris (from the Cape) in an adult man from which he had obtained, in 1899, a pale yellow culture of trichophyton on Sabouraud's medium. On potato the culture was also pale yellow. In the present case the fungus appeared to be the *Trichophyton sulphureum.*

Dr. E. G. Graham Little showed a case of *Lichen planus.* Patient, a woman, aged about 40 years, in whom the eruption was somewhat peculiar, in that it consisted almost wholly of hypertrophic nodular lesions, the size of a threepenny-piece, thickly distributed over the dorsum of both feet and the lower third of the leg, much less thickly on the inner side of the knees, and still more sparsely on the dorsum of the hands. There were in addition a very few, but quite typical flat small papules, characteristic of Lichen planus, on the wrists and on the inner surface of the knees. There was no affection of mucous membranes. The condition had lasted for about six months, and there was intolerable itching. She had been under the treatment of Dr. Ronald Carter, who had been good enough to allow the exhibition of the patient.

Dr. Henry MacCormac showed a case of *Lichen spinulosus with atrophy; (?) tuberculide.* Patient, a male, aged 22 years. There was no family history of tuberculosis, nor had the patient suffered from any previous illness. At the present time he has a urethritis of recent origin (gonococcal). The disease is stated to have begun on the left side of the forehead two years ago as a "scar" attributed to rubbing from a hat-band. When he was first seen by the exhibitor some three weeks ago the forehead lesion consisted of a central atrophic area, slightly reddened, about the size of a shilling-piece, fringed with dark horny plugs which have since disappeared in consequence of the application of salicylic acid outwardly. There is a similar but smaller lesion on the forehead close to the primary plaque, while on the back of the hairy scalp another is present. On other parts of the body, especially the left buttock, there are patches of follicular keratoses, but without atrophy. As now seen the lesions on the forehead and scalp suggest Lupus erythematosus. The buttock lesions are related to the scalp condition in their common possession of a follicular keratosis. Possibly the whole condition is a tuberculide.

The **President** observed that the case was an important and delicate one. No doubt the cicatricial patches on the face bore a superficial, but, as he thought, a misleading resemblance to erythematous lupus. Nor could he consider the scarred patch on the scalp, which still manifested shiny lesions, as an instance of Lupus erythematosus. True Lichen spinulosus as understood in this country was so frequently associated with Lichen planus that he had come to consider it as a congener or variant of that disease; although he had looked for it in the patient exhibited without success, he would not be surprised if it subsequently developed. He thought the patches about the patient's hips were true Lichen spinulosus and not lichenoid tuberculides which had become unusually shiny. On the other hand, he distinctly remembered one or two instances of typical Lichen spinulosus on the scalp (although not on the face) which necrosed, leaving scars. Therefore, although he was one of the few British dermatologists who adhered to the view that Lupus erythematosus was in some sense a tuberculous disease, he could not consider the case shown as supporting that view.

Dr. **Morrelle** (Brussels) remarked that he had seen and reported a similar case in Belgium.

Dr. **Adamson** agreed that the case was a very interesting one. When he first saw it he thought it was Lupus erythematosus, though it was not typical of that disease, either in distribution or appearance. But when he saw the groups of Lichen spinulosus-like lesions his view was that it was a tuberculide—Lichen scrofulosorum. The case ought not to be used as an argument in favour of Lupus erythematosus being a tuberculide, because it was not typical Lupus erythematosus. He was of opinion that Lupus erythematosus was not tubercular. In the majority of published examples of association of Lupus erythematosus with tuberculous lesions the supposed Lupus erythematosus was not typical. He had brought a case before the Section of Lupus erythematosus on the forehead and Lupus vulgaris on the body. Afterwards it turned out that the whole condition was Lupus vulgaris.

Dr. **MacCormac**, replying to the President, said he thought the great majority of cases of both Lichen spinulosus and Lupus erythematosus were of the nature of tuberculides. The case exhibited showed areas of atrophy closely resembling

Lupus erythematosus, together with definite patches of Lichen spinulosus, and the two conditions were combined together in places. It might be regarded as a mixture of two varieties of tuberculide. If one inquired about the family of patients with Lupus erythematosus there was almost invariably a history of tuberculosis.

Mr. CHARLES GIBBS, F.R.C.S., showed a case of *Keratodermia blenorrhagica.* L. R—, aged 34 years, was admitted to hospital on September 21st, 1914. His history is as follows: About five months ago he had a connection with a strange woman. A month afterwards his right ankle became swollen and painful. The order in which other joints became involved is as follows: (1) Left ankle-joint, fifteen days after; (2) the right knee, hip, left knee, left shoulder, and right wrist. Two months after the connection he noticed a discharge from his penis. During the last week of August he noticed a small pimple about the size of a split pea on the outer border of the dorsum of the right foot nearer the heel than the toes. It was hard, and was neither itchy nor painful. He scratched it, but no fluid came out of it. Later, it went on enlarging, till by now it has become as large as half-a-crown. This pimple was followed by a crop of eruptions. These are more marked on the soles of the feet than on any other part of the body, and more so on the balls of the toes than on any other part of the sole. These eruptions are very close together and "appear like mountain peaks on a relief map." They are also present on the cleft of the toes. The rest of the sole is covered with shining whitish scales. The area of eruption has a dark purplish colour. The dorsum of the foot is comparatively free. There are ten discrete eruptions on the right dorsum. One of these was soft, and when punctured a sebaceous matter was squeezed out of it. On the dorsum of left foot there are eruptions on the great toe, fourth and fifth toes. Both the legs are covered with eruptions, more marked on both shins, but these eruptions are different in appearance to those on feet. The character of the eruptions on feet is as follows: They are hard and nodular. These nodules are made up of horny material which is concentrically arranged; each of these nodules is surrounded by a narrow zone of hyperæmia; they are of dark-brown colour. The intervening area is covered with brown parchment-like thickening of the epidermis. The character of the eruptions on the legs: These are discrete papules which fade away on pressure;

some of these are covered with dry scales; they are much smaller in size than those on the feet; they also lack the firmness and hardness so well marked in eruptions on feet. The eruptions on the groin and pubis partake of the nature of the eruption on legs, except that they are few and far between. There are three on the right hand: they are more or less similar to those on feet. Left hand and body are free.

Patient denies ever having suffered from syphilis. Wassermann's reaction was negative. He has slight granular pharyngitis. On bacteriological examination his urine was found to contain some gonococci and streptococci.

Dr. Graham Little said he had had under his observation three cases of this rare affection, and had contributed the third case to be recorded in this country in 1910. The appearances in one of his cases had been somewhat similar to the present case, especially in the warty aspect of some of the lesions; their distribution in one case had also been similar, and their presence had been noted on the elbows, knees and hands, a fact which had suggested to the practitioner in charge the diagnosis of psoriasis. All his cases had been treated with a vaccine and had done well with this treatment. In all the cases arthritis had been a notable feature, and it was curious that the urethral discharge was not existent when the skin became affected.

The President said his experience of gonorrhœal keratodermia was very small. It was unusual to have a lesion on the hand such as this patient had. He did not question the diagnosis. The condition of the soles was identical with what he had seen in three cases. All who suffered from this condition had profound toxæmia and had gonorrhœal arthritis, and were altogether very ill.

REVIEWS.

Progressive Medicine.*

This quarterly digest of advances, discoveries and improvements in the medical and surgical sciences has always appealed to us on account of its admirable summaries of dermatological literature by Dr. W. S. Gottheil. We disagree with him occasionally (but this is quite unimportant), as, for instance, when he says that in the Alopecia areatas that have gone on to complete or almost complete denudation treatment is *of course* hopeless (p. 114). We do not take any credit for anything more than "luck," but we have seen such cases treated with success. His article on "Dysidrosis" is interesting, but we turn with more interest to that on "Basic Fuchsin in Chronic Ulcerative Dermatitis." We agree with him that no class of case gives us more trouble than the chronic ulcerations of the leg commonly designed as leg ulcers. The question of the use of basic fuchsin in such cases has been treated in an elaborate report by May and Heidingsfeld last year (*Journ. Amer. Med. Assoc.*, May 31st, 1913).

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* *Progressive Medicine.* Edited by Hobart Amory Hare, M.D., assisted by Leighton F. Appleman, M.D. September 1st, 1914. Whole Number 83. Vol. xvi, No. 3. Pp. 339. $6 per annum. Philadelphia and New York: Lea and Feibinger.

May has previously called attention to the germicidal action of basic fuchsin.* He now has studied it to determine its toxicity; he finds it a very diffusible germicide, entirely non-toxic, and with a marked stimulative action on epithelium and granulation tissue. Heidingsfeld investigated the material from the clinical side. Twenty selected cases of persistent chronic ulceration of the leg were treated with the following ointment: Grübler's basic fuchsin, 5 parts; eucalyptus oil, 10 parts; anhydrous wool fat, 100 parts. The ulcerations cleaned rapidly, and pus and all evidences of secondary inflammation disappeared promptly with relief of the pain. Ten of these cases were exhibited at the hospital clinical society showing very marked and rapid improvement.† In a few cases there occurred an inflammatory reaction, necessitating a reduction in the strength of the ointment. These patients, however, as is usually the case, could not be followed up to the termination of their cases; Heidingsfeld's term of service ended, some of them left voluntarily when half healed, others had to be discharged for various reasons, etc. In general, however, the results compared very favourably with other methods of treatment formerly employed.

In another series of cases treated in the same way in the hospital, Heidingsfeld's results were not so good; there was much inflammatory reaction and marked pain, and the ulcers did not granulate so satisfactorily. Investigation revealed the fact that the hospital had substituted commercial fuchsin for the Grübler material; a return to the original drug was followed by the same results as had been previously noted. In his conclusions the author reiterates his belief in the efficacy of basic fuchsin in these cases, and bespeaks a wide field of usefulness for it. He refers to the importance of antisyphilitic treatment in some of these cases; Dr. Gottheil would agree with his recommendation, with the additional remark than in the majority of cases a definite diagnosis of syphilis can be made when that is the cause of the ulceration, and that then an entirely different plan of treatment is indicated. Sometimes, however, the distinction is very difficult; and the blood test does not help us much, for the mere fact that a patient has once had syphilis (which is all that the complement fixation test means) does not show necessarily that his present lesion is specific. Dr. Gottheil is convinced, however, irrespective of the Wassermann test, and regardless to some extent of the physical appearances of the lesion, there is a specific basis to quite a large proportion of these lesions. Many of them at the City Hospital are put under antisyphilitic treatment as well as under local medication; and it is surprising in how large a proportion of cases the antiluetic treatment does them good.

J. L. B.

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* *Journ. Amer. Med. Assoc.*, April 20th, 1912.

† *Cincinnati Lancet-Clinic*, 1912, p. 606.

THE NEWER PHYSIOLOGY IN SURGICAL AND GENERAL PRACTICE.*

In the preface to the first edition, published in 1911, the author stated that his book was an attempt to sift out from the New Physiology that which is likely to be of value in the actual diagnosis and treatment of patients. This he accomplished most satisfactorily, and he managed to explain matters so simply that they could not fail to be intelligible to those having the most elementary knowledge of physiology, and all technical terms were avoided or defined. It would be of small service to lay before the reader mere theories or guess-work. With but few exceptions, only the established and settled conclusions arrived at by many competent and independent workers were introduced. In this third edition the same excellent underlying ideas have been carried out, but the matter has been amplified and new chapters have been added, so that the word "new" has with justification been changed to "newer." The first chapter on vitamines discusses, among other things, Beri-beri and scurvy, and in connection with the former he brings out the interesting fact that the outstanding feature of the incidence of Beri-beri in the Straits is, that while the Tamils are exempt, the Chinese suffer severely. Rice is the main article of diet with both races, but with this difference, that whereas the Tamils store their rice and boil it in husk, the Chinese use husked rice such as we are accustomed to in this country. The Chinese are extremely prone to Beri-beri ; the Tamils very seldom suffer. This cannot be due to any racial peculiarity, because Tamils in prison, when fed on husked rice, are just as liable as the Chinese. The essential neutralising principle in the husk is present in small quantity, but can be insolated in crystalline form, and on analysis appears to belong to the pyrimidine group.

There is clinical evidence in support of this experimental work. Research in the Philippines has shown that the infant of a mother fed on polished rice is liable to develop Beri-beri, but is rapidly cured by fresh cow's milk or by an extract of rice-husk. The substitution of parboiled for polished rice in a Siam prison has brought down the death-rate from 113 to *nil*.

The chapters on the thyroid and parathyroid glands, on the hæmorrhagic diathesis, and on cutaneous anæsthetics are of direct interest also to dermatologists. In connection with surgical shock, the oligæmia theory, the acapnia theory, the theory of Crile and Mummery, and the theory of suprarenal exhaustion are all dealt with, although the author inclines to the theory that it is brought about by nociceptive impulses inhibiting or paralysing the important nuclei in the region of the fourth ventricle or perhaps in the cerebellum.

These and other similar theories are fascinating to the physician, and the dermatologist may easily while away a pleasant hour in studying them afresh.

J. L. B.

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* *The Newer Physiology in Surgical and General Practice.* By A. RENDLE SHORT, M.D., B.S., B.Sc.Lond., F.R.C.S.Eng., Hunterian Professor, Royal College of Surgeons, etc. Third edition, revised and enlarged. Bristol : John Wright & Sons. London : Simpkin, Marshall, Hamilton, Kent & Co. Toronto : The Macmillan Co., of Canada. 1914. Pp. 256. Price 5*s*. net.

DISEASES OF THE SKIN.*

THE aim of this well-known book has always been to furnish a comprehensive yet compact exposition of dermatology. The rate of growth of the subjects is in a way reflected in some statistics of its increase in size. Its first edition in 1902 contained 502 pages discussing 164 diseases. In this edition there are 726 pages describing 257 diseases. Of course we cannot assume that ninety-three new skin-diseases have made their appearance in twelve years, and we can only congratulate the author on the more comprehensive, more elaborate, and altogether excellent "ready reference hand-book" which we have now had the pleasure of studying.

New sections have been added on acarodermatitis urticariodes, cutis verticis gyrata, eczema marginatum, eczematoid dermatitis, erythema figuratum perstans, gangosa, granuloma coccidioides, ground itch, hemisporosis, keratodermia gonorrhoica, and some others; and, in addition, many of the old sections have been rewritten.

Some of the diseases dealt with, such as gangosa and geromorphisme cutané, are not as well known in England as they should be, but all the more do we welcome Prof. Jackson's admirable exposition of these skin-diseases. In conclusion, we heartily recommend the book to all dermatologists of an inquiring or critical turn of mind. J. L. B.

ATLAS DER EXPERIMENTELLEN KANINCHENSYPHILIS.†

THESE authors are well known for their laborious researches into the subject of experimental rabbit syphilis. They have shown that this animal is susceptible to a form of the disease which, in its pathological and clinical characteristics, is very closely analogous to syphilis in man. Their investigations have been published fully already.

The present volume consists of a number of reproductions of photographs and drawings which they have prepared from time to time to record interesting "cases" or to illustrate their technique. To these illustrations are appended the notes relating to the experiment. The majority of the plates have already appeared elsewhere, and it is a matter for surprise that they should be thought worthy of collection in a separate volume. To be frank the coloured drawings in particular are not of a very high class. P. F.

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* *Diseases of the Skin.* By GEORGE THOMAS JACKSON, M.D., late Professor of Dermatology, College of Physicians and Surgeons, New York, etc. Pp. 770, with 115 illustrations and 6 plates. Seventh edition, thoroughly revised. London: Henry Kimpton, 1914. 15*s.* net.

† *Atlas der Experimentellen Kaninchensyphilis.* By P. UHLENHUTH and P. MULZER. Berlin: Julius Springer, 1914. Price 28 *m.*

LITERARY NOTE.

We are requested to call our readers' attention to Dr. William Seaman Bainbridge's book on *The Cancer Problem*, which has just been published by Macmillan & Co., Ltd., St. Martin's Street, Leicester Square, W.C.

Dr. Bainbridge's aim has been to collect in one volume the available information on the many aspects of this great subject, with very full references to the extensive literature.

BOOKS RECEIVED.

Gonorrhœa and its Complications in the Male and Female. By David Watson, M.B., C.M. Published by Hy. Kimpton, 263, High Holborn, W.C., and 40 and 42, University Avenue, Glasgow. 1914. With 72 Illustrations and 12 Plates, 9 of which are in colours. Pp. 375. 15*s*. net.

The China Medical Journal. July, 1914. Edited by A. C. Hutcheson, M.D. Published by Medical Missionary Association of China.

Ready Reference Handbook of Diseases of the Skin. By George Thomas Jackson, M.D. Published by Hy. Kimpton, 263, High Holborn, W.C. 1914. With 115 Illustrations and 6 Plates. Seventh Edition, thoroughly revised. Pp. 770. Price 15*s*. net.

Progressive Medicine. Edited by Hobart Amory Hare, M.D., assisted by Leighton F. Appleman, M.D. Published by Lea & Febiger, New York and Philadelphia. 1914. Vol. III, September, 1914. Price $6.00 per annum.

Obiter Scripta (Throat, Nose, and Ear). By A. R. Friel, M.A., M.D. Published by J. Wright & Sons, Ltd., Bristol. 1914. Pp. 40. Price 2*s*. 6*d*. net.

A Short Handbook of Cosmetics. By Dr. Max Joseph, Berlin. Published by William Heinemann, London. Pp. 93. Price 2*s*. 6*d*. net.

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A CASE OF ACNE AGMINATA (CROCKER).

From the Skin-Department, Rigshospital, Copenhagen.
Overlæge Dr. med. C. Rasch.

By W. JENKINS OLIVER, M.A., B.M.Oxon.,
Clinical Assistant in the Skin-Department, London Hospital (Dr. Sequeira).

C. H—, aged 31 years, a gilder by occupation, was admitted as an in-patient to the skin-department of the Rigshospital on November 28th, 1913, when he gave the following history: About three months previously he had noticed some small red nodules on the upper lip and chin, and this eruption had spread gradually to appear in some six to eight weeks on the cheeks and nose and finally on the forehead. He had been treated by his doctor with ointments, lead lotions, poultices and tar, but the skin-affection had gradually become worse.

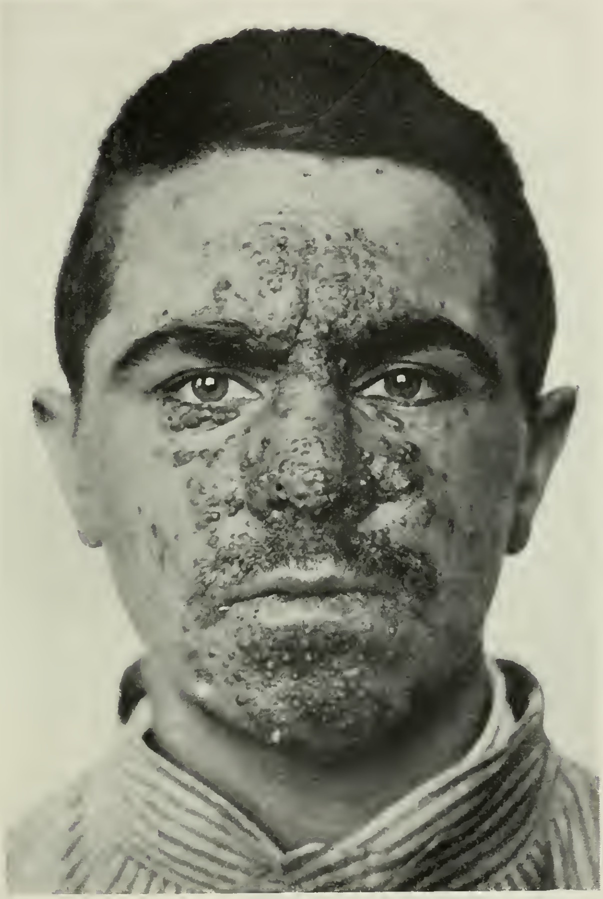
On admission the typical skin-lesions were confined to the face and were distributed symmetrically in groups on the cheeks about the nasal sulci, below both orbits (on the right side more than the left), the alæ nasi, above each eyebrow, and on the upper lip. Single groups were situated about the centre of the forehead extending on to the nose, about the tip of the nose, on the chin, with some few lesions on the right upper eyelid. These lesions consisted of bright reddish erythematous papules varying in size from a hemp seed to a small split pea. A large number of these papules had a thin, not very adherent, crusted covering, on removal of which there was slight bleeding. These lesions all felt solid to touch, were of a soft consistency without any apparent infiltration of the underlying tissues. Several papules, chiefly on the nose, had a yellowish appearance suggesting pustules, and "black-heads" were present upon the summit of some few of these. Under pressure with a diascope the colour almost entirely disappeared, and there was no sign of any lupus nodules. On the forehead and cheeks to the side of the grouped papules there could be felt other solid lesions as more deeply-seated papules covered by skin of a dull red colour. The lesions had always been quite dry, were rather tender and did not cause itching as a rule, though some irritation had been noticed previously after the application of the ointments prescribed by his local doctor. There were no scars suggesting former lesions. On the rim of both auricles were a few non-typical papules, and some pustular lesions without comedones were noticed on the back about the shoulders. There was some fine scaling of the scalp. No glands were felt to be palpably enlarged. The lungs and heart showed no adventitious signs, the pulse was regular and of small volume. The tongue was furred, and there were many decayed teeth. The ears, throat, and nose showed nothing remarkable on examination in the aural and throat department. The urine contained neither albumen nor sugar and showed nothing remarkable. The daily temperature variation was morning 98·2–97·6°, evening 99·3–99·8°.

The patient said that he had never had any skin trouble previously nor any other illness. He was married; his wife and two children were quite healthy. The patient's mother had died of phthisis, and he had two brothers and two sisters who were all living and in good health.

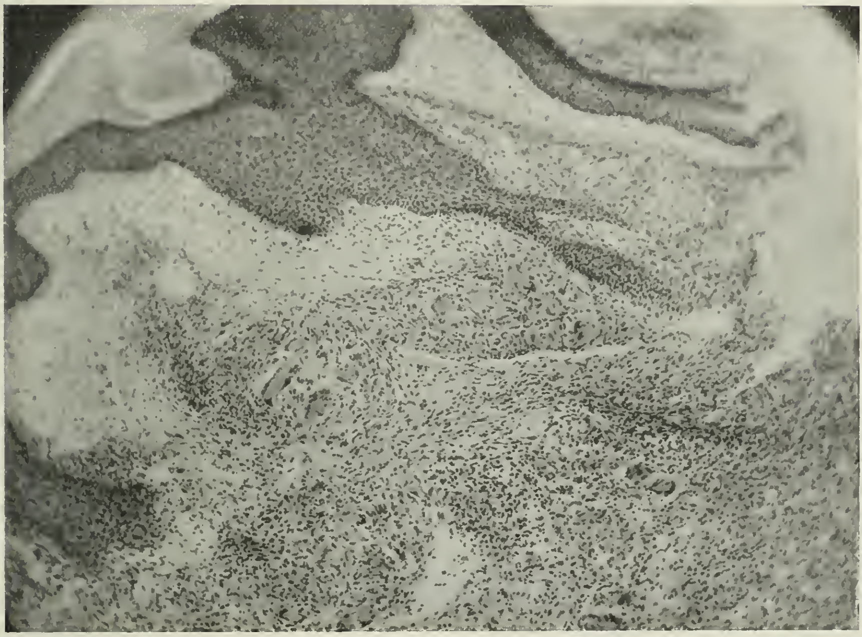
The patient remained in hospital until January 31st, 1914, during which time he had gained some 6 lb. in weight. He was treated internally with small doses of arsenic—three to six drops three times *per diem.* The local treatment adopted was the removal of all the lesions with a sharp spoon, except those below the orbits, which were destroyed with the galvano-cautery. The scraping away of the papules in this manner left no ulcerated lesions.

I have recently heard that this patient has remained perfectly well without any recurrent local lesions since his discharge from hospital, *i.e.* for a period of eight to nine months' duration.

A von Pirquet reaction was made on two occasions with an interval of three weeks. The first of these showed a negative result up to thirty-six hours, and the second gave a positive result in twenty-four hours.



To Illustrate Dr. W. J. Oliver's Case of Acnitis



The diffuse infiltration in the superficial layers of the corium, showing numerous irregularly scattered giant-cells with peripherally placed nuclei.

TO ILLUSTRATE DR. W. J. OLIVER'S CASE OF ACNITIS.

A histological examination was made from some lesions removed from the forehead. Two different sections were made from this material.

Section I. Low power.—This shows a blood-crust over an epidermis which appears to be normal except about the centre of the section where the granular layer is absent and the prickle-cells are not stained so readily, where the line of demarcation from the corium is not quite so well defined as normally owing to the subjacent infiltration. In this region no papillæ are visible. Here the whole corium is occupied by an infiltration of small round cells and giant cells extending diffusely from immediately below the epidermis to the level of the sweat coils. Towards the lower levels of the corium and at the sides of the large central diffuse infiltration, the infiltrating cells show a tendency to be grouped in a manner suggesting a tuberculous arrangement about the sebaceous glands with the remains of their follicles and more especially about the sweat coils of which the majority are destroyed. Over the whole section there is considerable dilatation of the capillaries and larger vessels. There is no sign of any definite necrosis.

High power.—The epidermis appears normal except in the area mentioned, where the stratum granulosum is hardly visible and the rete shows some little intercellular œdema with slight exocytosis. In places the basal cell layer is not quite distinct. Over the whole section there is œdema of the fibrous tissue of the corium and dilatation of the larger vessels and capillaries, many of which are filled with red blood cells. The infiltration consists of giant cells, epithelioid and small round cells, with some polynuclear leucocytes in the more superficial layers. The small round cells appear mostly like lymphocytes especially about the dilated and engorged vessels, while the giant cells are very definitely of the Langerhans type and are rather more numerously situated towards the epidermis. Outside the large central infiltration and in the deeper layers of the corium about the sebaceous glands are many mast cells with some fewer plasma cells.

Section II.—This is very similar to I but more vascular in appearance and shows many long follicles and sebaceous glands, about the majority of which is some little round-celled infiltration even in the superficial levels of the corium. At one place there is a suggestive tubercular arrangement about a hair follicle superficial to the sebaceous gland. As in I so there is also here at one end of the section a diffuse infiltration from the epidermis down to and around the sweat coils, which infiltration appears less dense than in the other section. About the more deeply situated sebaceous glands and sweat coils there are rather more numerous areas of infiltration in tubercular arrangement than in I. This infiltration is seen to consist of similar cells. There are fewer mast and plasma cells, and the giant cells are scarcely of just such a definite Langerhans type as those seen in the first section.

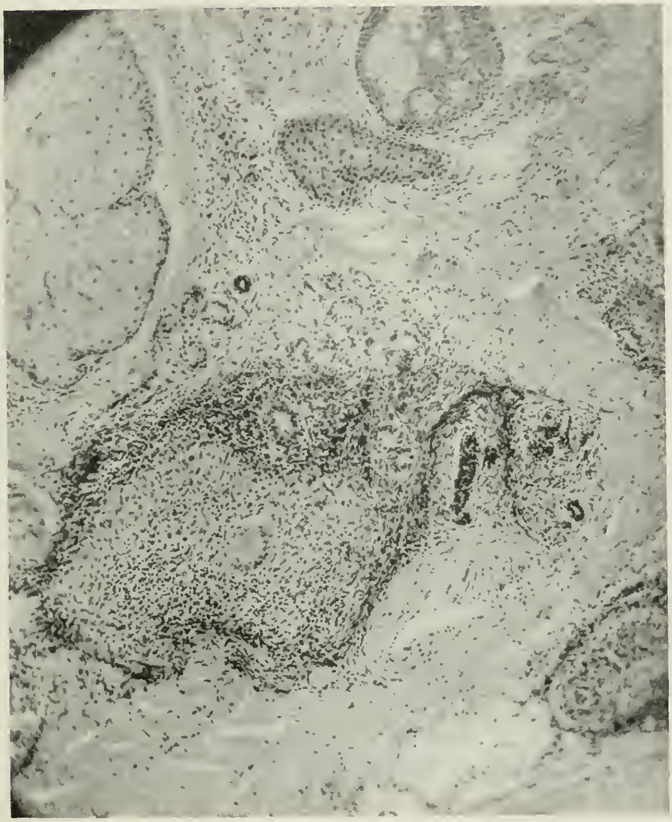
No tubercle bacilli were detected in any of the sections stained after the Ziehl Neelsen method.

Some papules removed with a sharp spoon were macerated in antiformin, from which smears were made and stained after Ziehl Neelsen's method. In none of these smears so obtained and stained were any acid-fast bacilli recognised.

On December 23rd, 1913, subcutaneous inoculations of similarly removed lesions were made into three guinea-pigs. These gained considerably in weight during the period under observation. When killed on March 2nd, 1914, there was no sign of tuberculosis in any of the organs and no glandular enlargements either to the naked eye or on further microscopical examination. In the case of one of these animals there appeared a small abscess at the site of inoculation towards the middle of February. This disappeared in the course of fourteen days, leaving some infiltration, which likewise showed no evidence of tuberculosis. (These inoculation experiments were carried out by Dr. Petersen and Dr. Kismayer, who completed their observations some few weeks after I had left Denmark. I am much indebted to these gentlemen for their ready co-operation in the investigation of this case.)

The affection, then, had apparently had an abrupt onset, starting as rather deeply situated cutaneous lesions to appear upon the surface as papules of a solid and soft consistency distributed in symmetrical and single groupings on the face. The histological examination showed an infiltration of inflammatory cells arranged chiefly in the deeper layers of the corium about the sweat coils and around some sebaceous glands.

This case agrees in both its clinical and histological aspects with



About the sweat-coil level, to show a tuberculous formation of the infiltrating cells.

TO ILLUSTRATE DR. W. J. OLIVER'S CASE OF ACNITIS.

the description in the literature of the Acne agminata of Crocker, the acnitis of Barthélemy, and with the picture of Kaposi's Acne telangiectodes, but it does not throw any positive light on the nature of the condition and so of its true place in the classification of skin-diseases.

A positive von Pirquet reaction in an adult cannot, I understand, be considered of any very great value as evidence of active tuberculosis especially when following a previously negative finding. The negative result from the inoculation experiments with the non-demonstration of acid-fast bacilli in either the sections or antiformin smears should have greater weight in the consideration of the tuberculous or non-tuberculous origin of this affection. The tubercular arrangement of the infiltrating cells and the very typical Langerhans giant cells are extremely like the cells and their disposition in the histological picture of a diffuse Lupus vulgaris.

From this case one can only affirm that the condition, whatever name we choose for it, should at present be classed with the so-called infectious granulomata of an as yet unknown origin, affecting mainly the sweat-coil region of the corium, there being no proof of Koch's tubercle bacilli being the infecting agent.

To Overlæge Dr. Rasch I must offer my best thanks for his permission to publish the notes and photographs of this case, and for his kindness in granting me the use of his library and the laboratory of his "clinic," and to Reservelæge Dr. Hjalmar Petersen for his assistance with the microscopical sections.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held November 19th, 1914, Dr. J. J. Pringle, President of the Section, in the chair.

Dr. P. S. Abraham showed a case of *Lupus pernio*. J. T—, male, aged 22 years, diamond cutter, was born at Petrograd, of Jewish parentage, but had lived in Antwerp for the last ten years. The patient had always been subject to chilblains. About seven or eight years ago he noticed thickening of the fingers, and painful and stiff joints. The fingers had become very painful during the few last years, especially in cold or in very hot weather. A year ago the nose developed red spots at the tip, which were treated last winter by Dr. Poirier with the cautery. The raised patch on the hand came two months ago, since coming to England. His father had died of rapid phthisis at the age of 63. A sister was delicate, but other members of the family were healthy. His case seemed to have puzzled the Belgian doctors, but in the opinion of Dr. du Bois Havenith the affection was tuberculous. The question might arise as to its being of the nature of Weir Mitchell's "erythro-melalgia," which had been not infrequently observed in America in Jewish youths; or, perhaps, of the affection described in this country by Dr. Parkes Weber.

The PRESIDENT (Dr. J. J. Pringle) regarded the case as a quite characteristic example of the condition first described by Sir Jonathan Hutchinson in this country as Lupus pernio, a name afterwards adopted by Besnier and others on the Continent. It was typical in that the patient had very marked chilblain circulation with acro-asphyxia, and in the middle of the asphyxial areas there were patches and nodules of lupus. He asked Fellows present for their experience as to the ultimate course and duration of these cases, which he, personally, had been unable to follow out satisfactorily. Some of those he had seen had become sclerodactylic and gangrenous, but these conditions were referable more to the circulatory disturbance than to the tuberculous element.

Dr. ADAMSON agreed that the case was a typical example of Lupus pernio. The disease was apparently very rare in this country. He had seen, on several occasions, a case which was under the care of Dr. Colcott Fox, in which the diagnosis had been originally made by Besnier, who had first described the disease under this name. The condition of the fingers in that case was exactly as in this patient. The considerable enlargement of the distal part of the affected fingers and the dusky, purplish colour of the swelling were characteristic. The red-brown nodules of lupus were only seen on close inspection or on firm glass-pressure. Their presence was masked by the general infiltration. As to prognosis, the case referred to had been under observation for many years, and there had been little change beyond some slight diminution of some of the lesions under X-ray treatment and the appearance of fresh lesions in other parts. Another case under the care of Dr. Horton-Smith Hartley, in which nearly all the fingers and toes and the nose and ears were involved, had succumbed to acute pulmonary tuberculosis.

Dr. SEQUEIRA said that, in this type of case, he had found the greatest benefit follow static baths to improve the circulation.

Dr. J. M. H. MACLEOD showed a case of a *peculiar non-pigmented soft mole*. Male infant, aged 6 months. The mole was situated on the left side of the scalp just above the left ear. It was oblong in shape, measured 1½ in. in length and ½ in. in breadth, was raised about 1 mm. above the surface of the skin, hairless, non-pigmented, and presented a yellowy waxy appearance. Its peculiarity was that the surface was rugose, being split up by a series of transverse grooves, roughly parallel to each other, at intervals of about 2 mm. The nævus was observed at birth. There were no other congenital abnormalities.

Dr. WHITFIELD said he had no doubt the lesion was a soft mole. What interested him in these cases was the question of alleged maternal impressions. There was no real evidence of such impression in this case, but it was interesting to notice how readily one could be elicited. The mother, when the child had been four and a half months *in utero*, thought a motor vehicle was going to run over her, and the appearance of the mole was curiously like the markings of a Prowodnik tyre.

Dr. SEQUEIRA said he had seen a mole of this type on the frontal area, which illustrated an interesting fact brought out by Dr. Warner that these congenital deficiencies were often multiple, as the child had a coloboma on the same side.

Dr. GRAHAM LITTLE agreed with Dr. MacLeod that these cases were uncommon; he had never seen a case quite like it.

Dr. ABRAHAM, discussing the subject of maternal impressions, related the case of a man in Dublin, who behaved badly to several women, one of whom badly scarred his face by throwing acid over it. At about the same time another woman gave birth to a child by him. This child had a strawberry mark on the same side of the face as the injury to the father's face; but, unfortunately for the "maternal impression" theory, the child was born three days before the vitriol was thrown.

Dr. S. E. DORE showed a case of *Keratosis follicularis spinulosa* (*Lichen spinulosus*) in a girl, aged 8 years. Two years ago the mother noticed a roughening of the skin of the child's elbows immediately following an attack of pneumonia. The neck and body became affected about the same time, but there was no appreciable change in the condition until six weeks ago, when several fresh patches appeared. The eruption was seen in its most characteristic form on the back of the neck on each side of the middle line, where there were symmetrical patches consisting of closely aggregated follicular papules with projecting filiform spines. On the back of the elbows, and to a less extent on the knees, the follicles were dilated and centred by a horny plug, and all the follicles on the extensor surfaces of the forearms and legs were unduly prominent, causing nutmeg-grater roughening of the skin. There were numerous minute dome-shaped follicular papules, either single or in patches, scattered over the back and thighs, especially in the trochanteric regions, and a few on the abdomen; there was no definite whorl arrangement. These papules were for the most part skin-coloured, a few being reddened apparently from temporary local irritation. Itching was very slight. The child was in other respects healthy, and there was no evidence of tuberculosis; her Wassermann reaction was negative. The mother had had six children, of whom two had died, but none had suffered from a similar complaint, and there was no history of ichthyosis.

The exhibitor drew attention to the fact that the complaint had followed an exanthematic fever in at least two of the recorded cases, and also suggested that external irritation might be a causative factor, as in the case of multiple comedo and folliculitis following the application of grease to the skin. He had recently seen a case of Lichen spinulosus of a fortnight's duration in a young woman, which was attributed to wearing furs round the neck.

The PRESIDENT reminded members that at the last meeting Dr. MacCormac brought forward a case which was apt to give rise to confusion between two conditions which he (the President) considered to be completely distinct. One was true Lichen spinulosus, of which the present case was an example, and the other was a tuberculide which became spiny. He was inclined to think the French dermatologists did not recognise the condition presented by the patient, though they knew spiny tuberculides very well. He agreed with Dr. Dore that in this case there was no evidence of tuberculosis.

Dr. ADAMSON agreed with the diagnosis of Lichen spinulosus. He was opposed to the view that Lichen spinulosus was merely a form of Lichen scrofulosorum. Dr. Colcott Fox had frequently called attention to the fact that there were several eruptions in which there might occur patches of grouped follicular spines —namely, Lichen spinulosus, Lichen scrofulosorum, the small follicular syphilide and certain forms of seborrhœic dermatitis. And he had pointed out that these eruptions, though easily confused, were ætiologically distinct. In the speaker's opinion Lichen spinulosus was not a tuberculide, but an affection nearly related to Lichen planus. Indeed, Lichen spinulosus in an adult always indicated that the patient had had or was going to have Lichen planus, if it were not already present. In children the same association had been noted, though Lichen spinulosus occurred often in children without planus lesions, possibly because Lichen planus was so rare in childhood. Dr. MacLeod had lately shown a child with co-existent Lichen spinulosus and Lichen planus.

Dr. WHITFIELD said that he agreed with the diagnosis, and he also thought Dr. Dore was quite right in his idea that local irritation was a factor in the distribution of the spines. He thought there was a special susceptibility of the skin which caused it to react to slight irritants by an over-production of horny material. In this case the localisation of the spines on the neck was highly suggestive of friction of the neck-band. The spines were more pronounced on the sides of the neck than on the back or the front, and this was the case with the ordinary pigmentation which was present on the necks of most men who wore stiff collars. In addition to the number of diseases which had already been enumerated by other speakers as productive of little spines he might add the so-called dry seborrhœic eczema. This was a disease strongly emphasised by Dr. Colcott Fox, and it was sometimes very difficult to distinguish seborrhœic eczema with spines from Lichen scrofulosorum, as the papule formation and ring and disc grouping were present in both. The form of seborrhœic eczema with spines had only been seen by Dr. Whitfield in children. What it really came to was this, namely, that any chronic disease of the lanugo hair-follicle was liable to be associated with spine formation. He was also in provisional agreement with Dr. Adamson in the idea that Lichen spinulosus was a phase of Lichen planus. It was, of course, almost impossible to prove that this was so in every case, but it was certainly true of the majority of cases. As regards the question of Lichen spinulosus, Pityriasis rubra pilaris and the acuminate papule of Lichen planus he might say this. Dr. Graham Little had told them that microscopically the papule of Lichen spinulosus resembled that of Pityriasis rubra pilaris. He (Dr. Whitfield), had not had the opportunity of examining a papule of Lichen spinulosus, but he had examined papules from follicular lesions of Pityriasis rubra pilaris and from the papule in one of Dr. Colcott Fox's cases of follicular Lichen planus. For him they were quite indistinguishable; he could easily distinguish the plane lesions in these two diseases, since the plane lesion of Pityriasis rubra pilaris resembled that of psoriasis, while that of Lichen planus was, of course, a papillary infiltration; but the follicular lesions of the two diseases were indistinguishable. This being so it was probable, from what Dr. Little had said, that the papule of Lichen spinulosus strongly resembled that of Lichen plano-pilaris. As regards the comedo, he thought this was a different lesion, since it was more in the nature of a cork in the follicle, while in these other diseases it was rather a hyperkeratotic collar or funnel in the neck of the follicle, and he did not think the two lesions were produced in the same way.

Dr. Graham Little did not agree with the view that Lichen spinulosus had any connection with Lichen planus. Histologically, Lichen spinulosus and Lichen planus had very characteristic individual features which were not even alike. The nearest histological analogy to Lichen spinulosus was Pityriasis rubra pilaris, which he also regarded as totally distinct and unconnected with Lichen planus.

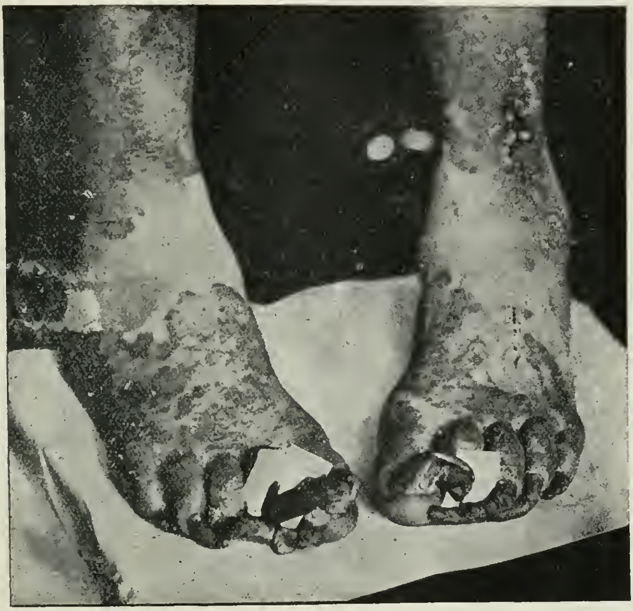
Dr. Dore replied that he meant to suggest that this condition might be analogous to multiple comedo and acne, such as was sometimes set up by friction with tallow or camphorated oil. It was called by the French Acne colorée. There were horny plugs present, but no comedo.

Dr. W. Knowsley Sibley showed a case of *psoriasis, onychogryphosis and rheumatoid arthritis*. The patient was a single woman, aged 24 years, a tailoress by occupation, who had always been rather delicate. Her father was stated to have died from consumption at the age of

60; her mother was living and well. There were seven other children in the family, who were all in quite good health. There was no history of rheumatism nor of psoriasis in the family. The patient had a slight presystolic mitral murmur, and a rather hectic flush on the cheeks; she was very thin, and was suffering from a rather extensive gingivitis. The psoriasis first appeared eight years ago, and commenced in the neighbourhood of the larger joints—viz., the ankles, knees, wrist and elbows. At the present time there was an extensive scaly eruption over both the trunk and limbs.

Three years ago the toe-nails became affected; the change commenced in the great toe-nails and shortly afterwards all the toe-nails became affected to varying degrees. The nails became very thick and hard, so that it was impossible for the patient to cut them, and they had therefore been allowed to grow without interference ever since. At the present time the nail of the right great toe formed a horn some 4 in. in length, which had taken a complete curve round the nail of the second toe, which was itself considerably hypertrophied, the nail had made almost a complete circle, and the free end pressed against the side of its own toe. The remaining nails varied from 1 in. to 2 in. in length, and were all more or less curved and folded one over the other. The nails of the fingers were also considerably affected with psoriasis, especially those of the thumbs, which had become very much thickened at the free ends, and at the present time presented the more or less typical characters of the condition described as psoriasis of the nails. The hypertrophied toe-nails were very hard and horny, the nail substance had become opaque, the surface rough and irregular, and the colour varied from dirty yellowish straw to brown, while the finger-nails were distinctly blackish in appearance.

Three years ago the patient suffered from rheumatic pains in the legs and thighs; for the last twelve months the rheumatic condition had become much worse, especially in the hands, ankles, and neck. On the right hand there was considerable painful swelling of the middle joint of the thumb, and the proximal joints of the index, middle, and ring fingers. On the left hand the little finger and the hypothenar eminence were affected. The joints which were attacked presented the typical cylindrical swellings of rheumatoid changes. In addition to the rheumatoid arthritis, the interest in the case consisted in the extreme hypertrophy and overgrowth, onychogryphosis, of the toe-nails, which formed horns varying in length from 1 in. to 4 in., the longer ones were curved as shown in the accompanying photograph. Radcliffe Crocker, in speaking of the ætiology of psoriasis, wrote: "Rheumatoid arthritis and the other arthopathies are also factors, and in such cases the nails are very frequently affected, and in the rheumatoid cases there is a great heaping up of the scales at points of pressure." This case certainly illustrated in a remarkable way the affection of the nails of the toes, and more recently also those of the fingers.



The PRESIDENT said the case was an extremely remarkable one. He had had the fortune to see a few cases of toe-nails similar to this, which he called onychogryphosis, but he had never seen them in association with psoriasis. As Dr. Sibley said, the affection of the finger-nails was typically localised in the subungual tissue, and he would call the condition of the patient's finger-nails typical psoriasis. He did not doubt that the toe-nail condition was a very exaggerated degree of the same condition as existed in the finger-nails, the disease having begun in the usual manner in the nail-bed and thence having invaded the nail-substance proper. He was previously unaware of any relationship between onychogryphosis and psoriasis, and he would be glad to hear if anyone present had had any experience of cases similar to that exhibited.

Dr. PERNET said he did not remember having seen such marked onychogryphosis associated with psoriasis in so young a patient. He had had under observation several patients in whom psoriasis was associated with rheumatoid arthritis. In such, the psoriasis lesions were usually of the inflammatory or very congested type, and obstinate. Rest in bed, feeding up, and salicin he had found the best line of treatment.

Dr. WHITFIELD said that he had not seen onychogryphosis as the result of psoriasis before. He would point out that the loosening of the nail-plate from the bed was not produced in the same way as the onychogryphosis. The former was produced by a psoriasis papule occurring in the nail-bed, while the latter was produced by the affection of the matrix. The matrix could be affected either by the extension from the disease from the posterior nail-fold or by its extension from the tip of the finger along the nail-bed, but until the matrix was affected the loosened nail-plate would remain smooth, as was the case with the fingers of this patient, while the nails of the toes where the matrix also was affected were transversely ribbed and deformed. This was one of the cases with rheumatoid arthritis of the small joint type, and apparently was associated with a toxæmia. This being so Dr. Whitfield would suggest, if Dr. Sibley had no particular treatment in view, that he should take the case in and administer creosote in the largest doses that the patient could tolerate. He had introduced this treatment some years ago, and had some success with it, but had not published any account because the percentage of successes was too small; but this was the type of case in which he had seen benefit most often. The successful cases had not been mere instances of the capricious disappearance of the eruption, as he had once or twice removed obstinate eruptions of more than seven years' duration. He had tried guaiacol carbonate as being less nasty, but had never had any success with it.

Dr. EDDOWES suggested that the toe-nails were most commonly damaged in the matrix by wearing short boots. The nail was thrust back with each step. He once saw nails as big as these; the patient was very poor, and wore any boots she could get, and generally they were too short for her. Her nails were supposed to have grown twenty-five years without being cut. They were, on each great toe, curled up like a ram's horns.

Mr. SAMUEL asked whether Dr. Sibley considered that the osteo-arthritis in this case was an ætiological factor in the production of the psoriasis. He understood the psoriasis in this patient had been in existence eight years, while the osteo-arthritis was of recent origin.

Dr. MIDELTON said he saw many cases of Arthritis deformans, and for a long time there had been considered to be some association between that condition and psoriasis. His view was that there was no such association, at least to any great extent. The same toxin might cause both the joint and the skin condition, and measures directed to counteracting the toxin would clear both up. For many years he had advocated counter irritation for these conditions, first advocated by Dr. Latham, of Cambridge.

Dr. SIBLEY replied that the only treatment for these very much hypertrophied nails was complete evulsion, though he did not know what the ultimate result would be. He was obliged for Dr. Whitfield's suggestion as to treatment, and he might try it later. The patient had just commenced the intensive iodine treatment, and she said that already the pains were much less. There was an association between psoriasis and rheumatic conditions—not necessarily rheumatoid arthritis—and he was sure that association existed in a large number of fairly healthy young people who had psoriasis.

Dr. J. H. SEQUEIRA showed a case of *Lichen plano-pilaris.* The patient, a single woman, aged 36 years, was sent to the London Hospital by Dr. Newby Smith. She worked as a dressmaker, and beyond the usual infantile ailments had enjoyed good health. The family history was negative. In December, 1913, she stated that she felt unwell, and her hair began to fall. In July, 1914, her hands became affected, the backs first showing red spots, and finally becoming scaly. A few spots also appeared on the abdomen. In September, 1914, the eruption came out widely, involving the whole of the body, limbs, and face. In October the palms of the hands became rough and hard. There was no evidence of visceral disease. When shown at the meeting the patient had extensive Lichen planus of the common type on the legs, forearms, and trunk. The hands were also affected, the palms especially being keratotic, and showing under the lens pin-head-sized depressions in the scaly surface. There were some scaly pigmentary spots, the size of split-peas, on the forehead, nose, and chin; these were of a brown colour, definitely raised above the surface, and, apparently, of the same nature as the rest of the eruption. At the nape of the neck and on the shoulders there was an extensive eruption of closely-set acuminate papules, presenting typical pointed horny plugs. The buccal mucosa showed characteristic lesions of Lichen planus. The case was an unusually severe example of the type which had been described by the President as Lichen plano-pilaris.

The President considered the case the severest and most extensive example of the disease, which he had originally described as Lichen plano-pilaris, he had ever seen. It was absolutely characteristic in the association of typical Lichen planus, with typical Lichen pilaris lesions; and this association supported the views of himself and others as to the intimate essential connection between the two diseases. The case was, of course, different from that he showed at the last meeting, which was one of Pityriasis rubra pilaris, with a large predominance of plane lesions. In the present case the affection of the mouth was very characteristic, and would dispel any doubts as to the diagnosis.

Dr. Graham Little did not think that the accidental occurrence of Lichen planus either synchronously with or following upon Lichen spinulosus, which he had never seen happening in his own experience, and the recorded cases of which were excessively infrequent, warranted the assumption that the diseases were connected. The histology of Pityriasis rubra pilaris was unlike the histology of Lichen planus, but was very like the histology of Lichen spinulosus, therefore the latter was unlike Lichen planus. If it was contended that all acuminate lesions of Lichen planus—and accuminate lesions were a well accepted clinical form of Lichen planus—were to be regarded as instances of Lichen spinulosus, then there was no more to be said. But this was not contended. It was excessively difficult to differentiate follicular spiny papules, and he regarded it as probable that the very few instances in which Lichen spinulosus had been noted as occurring in connection with Lichen planus were really instances of perhaps unusual acuminate forms of Lichen planus simulating the lesions of Lichen spinulosus.

The President replied to Dr. Little in the negative. The acuminate lichen of the Vienna school was now, by common consent, regarded as identical with the Pityriasis rubra pilaris of Devergie, and, although a considerable number of acuminate papules were often present in typical Lichen planus, their histological characters were different from those of the acuminate lesion of Devergie's disease; but in cases of Lichen spinulosus he believed one could frequently find Lichen planus papules, or the patient subsequently had attacks of Lichen planus. This case was a perfect example of the association.

Dr. Adamson said he regarded the case as an example of Lichen spinulosus and Lichen planus occurring in the same patient, and it illustrated his view that Lichen planus and Lichen spinulosus were the same or closely related conditions.

Dr. Pernet said that from the clinical point of view he considered that Lichen planus and Lichen spinulosus were separate diseases. He regarded the fact of their coincidence in one patient as accidental. In his experience, Lichen spinulosus was more frequently met with in young adults and children, but that the two conditions were often associated had not been his experience.

Dr. A. Eddowes thought the name excellent for this complaint. Many of the lesions were found to be confined to the orifices of the sweat apparatus. In some chronic cases of Lichen planus he had been fortunate enough to cut the section in such a way as to show the keratosis invading the hair-follicle, and it was not uncommon, even in rather acute cases of Lichen planus on the limbs and body, to find little spines. This case was a slight development of what he had seen going on to a verrucose kind of Lichen planus, so altered as to become here and there large granulomata, looking, when ulcerated, like Granuloma fungoides. In that state it was scarcely recognisable as Lichen planus at all, but on resolution the plane papules reappeared and cleared up all doubt.

Dr. Alfred Eddowes showed a case of *Rodent ulcer*. Mrs. R—, aged 56 years, had been suffering from rodent ulcer for over ten years, Two years ago her blood had been examined and the suggestion was made that she should have a series of twelve subcutaneous injections (presumably salvarsan). Carbon dioxide snow was applied fifteen months ago. Suggestions as to treatment were invited from the Fellows.

Dr. MacLeod considered that, owing to the position of the ulcer at the inner canthus of the eye, a radical excision was not practicable and believed that the best treatment for it was by radium. He had treated a number of cases of rodent ulcer with carbon dioxide snow, but had not, so far, obtained a satisfactory result from that method, as recurrences had invariably taken place.

Dr. Graham Little had seen a series of cases of rodent ulcer of the eyelid treated by carbon dioxide snow, both by himself and by his colleague, Mr. Leslie Paton, who had recently shown a number of excellent results of this treatment at the Harveian Society. He was personally satisfied, and so was Mr. Paton, that the method was a most useful one in the treatment of rodent ulcer in this position as well as elsewhere. His opinion of its general utility in rodent ulcer was founded on a long series of cases which had been kept under observation during the past four years, in which recurrences had been no more frequent than with any other method.

Dr. Sibley agreed that the snow would heal these cases up, but it required X-rays to cure them; otherwise in a few months they broke down again unless full doses of X-rays were applied for some half-a-dozen times at one-month intervals.

Dr. Sequeira said he was not favourably impressed with the treatment of these cases with carbon dioxide snow. He had had a number of patients sent on to him after that treatment for the application of other measures, and he preferred to treat this type of rodent ulcer by radium. He had a case of the kind on the lower eyelid cured in 1903, and it had remained well ever since.

Dr. Pernet agreed there was frequently a recurrence of rodent ulcer after a time when carbon dioxide snow had been applied. Whatever treatment was employed, the case should be followed up, especially in old people, for recurrences.

The PRESIDENT said he mentioned to Dr. Eddowes before the meeting that the application of large doses of radium was much the most satisfactory method of procedure in rodents in the situation of the patient's. As well as producing more permanent results, it was also handier to use.

Dr. E. G. GRAHAM LITTLE showed a case of *Papulo-necrotic tuberculide*. This case was of the type described by Colcott Fox as Acne scrofulosa. The patient was a woman, aged 35 years, who was now under treatment for pulmonary phthisis, and had had several operations for removal of tuberculous glands from the neck, where, however, there were still numerous large and hard glandular enlargements. She also gave a remarkable family history of tuberculous affections. The skin eruption had shown itself four years previously, and had persisted since then. At the present time there was a very widespread rash of typical acneiform necrotic papules distributed especially thickly on the buttocks, the legs, and the hands; less thickly on the arms and forearms, the abdomen, and to a slight degree on the face.

Dr. E. G. GRAHAM LITTLE also showed a case of *Chronic dermatitis of the right arm*. Patient was a Belgian refugee boy, aged 16 years. The clinical appearances were strongly suggestive of tuberculosis, and this was probably the correct diagnosis, but there were features rendering this conclusion at least doubtful in the exhibitor's opinion. The history, obtained through an interpreter, for the patient spoke no language except Flemish, was that at the age of three he sustained a burn of the arm, and in the site of this injury the first lesion developed as a chronic inflammatory condition, which spread slowly until the present area was involved. The aspect at present is that of a wavy, serpiginous outline of pus-infected, rather superficially indurated inflammatory skin, enclosing a smooth ivory-white supple scar. Outside the margin of the active inflammation there was an area of scar-tissue of the same character, about an inch in width, which had been occupied by a similar inflammation. Above the elbow there was also a single scar of the size of a florin. No treatment had ever been applied other than a sedative ointment. Three diagnostic doses of old tuberculin, beginning with $\frac{1}{2000}$ mgrm. and finishing with $\frac{1}{500}$ mgrm., were given within five days, and there was no rise of temperature suggestive of tuberculosis. The apparently spontaneous involution of the centre and spread at the peripheral margin, the serpiginous outline, the definite inauguration of the disease with injury, and the rapid improvement of the inflammatory margin with surface antiseptic treatment, had suggested to the exhibitor the possibility of a chronic non-tuberculous microbic infection of the general character of the cases described under the title "Dermatitis repens" by Crocker, the exact nature of which had never been clearly apprehended by the exhibitor, but which had been included by dermatologists who had had opportunities of seeing Crocker's original cases under the general heading of superficial ecthyma.

The PRESIDENT, discussing the second case, said he thought it was a typical lupus modified by treatment, and in that view he did not think he stood alone. He could not see any resemblance in the case to the disease described by Radcliffe-Crocker as "Dermatitis repens."

Dr. DORE agreed with the President and others that this seemed to be a case of Lupus vulgaris. The cases he had seen under the name "Dermatitis repens" were not anything like this.

Dr. A. WINKELRIED WILLIAMS showed a case of *leprosy*. The case of leprosy exhibited at the end of last session was again shown to demonstrate the great improvement which was in part the result of a vaccine. Dr. Williams excised a nodule from the face and dried it to a brittle, horny mass in a sulphuric acid dessicator. This was ground up to a fine powder, from which Dr. Ihles made a vaccine and was able approximately to count the bacilli. The patient was given injections first of 2½ million and later 5 million bacilli. The latter dose gave a specific reaction; no fever, but an eruption of patches of erythema, which gradually disappeared, leaving slight pigmentation behind. A large ulcer on the knee that had resisted all previous treatment was reduced to two small, scabbed lesions a week after the first dose, and completely healed after the second, and had remained sound ever since. All the profuse bacilli-laden discharge from the nose and throat had ceased, and careful swabbing of the nose and pharynx had failed to show any acid-fast bacilli. All nodules had flattened down, and most had become quite imperceptible to sight and touch. Sensation of pain was returning in the anæsthetic areas. The patient had, at the same time, been treated with large doses of ol. gynocardiæ by the mouth, boric nasal douching, followed by perchloride spraying and inunction of nodules with a white precipitate and ichthyol ointment.

Dr. Williams was anxious to elicit the opinion of the members of the Section as to whether it would be safe for this patient—an Army sergeant—to drill recruits in the present national emergency.

Dr. GRAHAM LITTLE said Dr. Williams was to be warmly congratulated on the result in this case. A similar method was tried at St. Mary's Hospital in a case of leprosy two or three years ago. Sir Almroth Wright had the case in his wards for a long time. The patient received inoculations of emulsified tissue derived from a leprous nodule, in the way now described by Dr. Williams, and there was very manifest improvement in the patient in nine months.

Dr. G. PERNET considered, under the circumstances, that this man was not very contagious, so long as he did not sleep or live at close quarters with others. The nose condition should be carefully watched. He had never seen leprosy in this country spread from a leper to a non-leper, but the possibility of such an occurrence should be kept in view. As to contagion nodular cases were on a different plane to the nerve leprosy type. He had seen all kinds of treatment do good at first in the nodular variety, but unfortunately disappointment was the usual event.

Dr. SEQUEIRA said the question asked by Dr. Williams was a difficult one to decide. He had to decide in the case of a nurse who was suffering from pure nerve leprosy. There had been no discharge from her nose. For the last three years she had been, with his approval, carrying out her duties.

The PRESIDENT was strongly of opinion that the patient ought not to be allowed into close asssciation with recruits or any other of his fellow-men.

CURRENT LITERATURE.

THE TREATMENT OF X-RAY ULCERS. BOGROW. (*Archiv f. Derm. u. Syph.*, cxx, No. 2, June, 1914.)

MOST dermatologists have been consulted at one time or another for the intractable dermatitis and ulceration caused by the injudicious use of X rays, and are therefore in a position to testify to the extraordinary chronicity of these often painful and nerve-prostrating lesions. Any addition to the therapeutic armamentarium in this connection is therefore more than welcome, for, short of wide surgical excision, there is no satisfactory way of dealing with a Röntgen ulcer. Dr. Bogrow, of Moscow, has treated a case on the Pfannenstiel plan, with complete success, and the method should receive a thorough trial in every case before recommending operation. The patient was a woman, aged 58 years, who had been radiographed for presumed renal calculus three times in one week in July, 1912. A large bulla developed within a week in the left hypochondrium, there was much pain, and the patient could hardly walk. In December, 1912, an ulcer 8 by 7 cm., of horseshoe shape, with a hyperæmic areola, and of a brownish cyanotic colour, was present in this situation, and by its constant crusting, slight serous discharge, and accompanying pain left no doubt as to its ætiology. On account of the fœtor, iodoform powder was the first remedy applied, but accelerated increase in the size of the ulcer proved it to be too irritating, and 1 per cent. carbolic lotion was the next application, with arsenic injections for the improvement of the general health. The ulcer remained *in statu quo*, but the fœtor diminished. Permanganate solutions, $\frac{1}{4000}$, 2 per cent. boracic fomentations, and 2 per cent. boracic ointment dressings were unsuccessful both in diminishing pain and in procuring sleep, and the patient continued to lose weight. On January 7th, 1913, Bogrow commenced the Pfannenstiel treatment, having first satisfied himself that there was no idiosyncrasy for iodine. Three grms. of sodium iodide (= about 45 gr.) were given daily by the mouth in six doses, and the ulcer completely covered with cotton-wool soaked in 10 per cent. hydrogen peroxide (perhydrol, Merck) to which had been added acetic acid (1 per cent.) to activate. The margins of the ulcer and surrounding skin were protected with vaseline to prevent damage by the lotion, and the applications were changed at frequent intervals throughout the day, being replaced at night by 1 per cent. moist carbolic dressings. A week after commencing the treatment, *i.e.* January 15th, the patient was sleeping well and the temperature, which in consequence of secondary infection of the ulcer, had been raised, dropped finally to normal. The slough, which occupied the face of the ulcer, was beginning to separate at the margins, and the pain was less. On January 24th there was distinct evidence of ingrowth of epithelium, and the size of the ulcer now was 6 by 6½ cm. Detailed reports of progress from day to day bring us to March 27th, on which date the patient left the hospital at her own request, and became an out-patient. The Pfannenstiel procedure was then changed for weak permanganate (1 per cent.) compresses. The size of the ulcer was 3 by 3½ cm.

On April 4th the ulcerated area, through the ingrowth of an epithelial bridge, had become bilocular.

A month later the upper of the lesions measured 1 by 1½ cm., the lower 2 by 1 cm. On May 30th both had increased again in size respectively to 2 by 2 cm. and 1 by 3 cm. The Pfannenstiel treatment was again recommenced, and on June 17th both ulcers had healed. The hyperæmic scar, which showed a tendency to contract, presented a small erosion on July 25th, this, however, healed quickly under boracic ointment. Some tenderness of the scar was controlled later by a 1 per cent. tar zinc paste and gentle massage, and by December 10th there was no more hyperæsthesia. The final report on January 9th, 1914, stated that the scar was elastic and that there was no interference whatever with the normal movements of the body.

In his summary the author points out: (1) That the ulcer had shown no tendency to heal for five months; (2) that it had almost healed in four months, but (3) relapsed on substitution of pot. permang. compresses for the Pfannenstiel procedure, and (4) regained a healthy appearance and the tendency to heal on resumption of the method.

He admits that for purposes of comparison the time taken by a Röntgen ulcer to heal by other methods must be ascertained, but although it can be roughly estimated, the duration and nature of the original over exposure to the rays is the all-important factor, and this, of course, differs in each case. He gives a list of cases which comprises—twenty cases healing in six months; seven in seven to twelve months, and six in from eighteen months to three years. A year would seem to be a minimal healing period for an ulcer of medium depth and extent, and from this point of view the results in Bogrow's case were eminently rapid and satisfactory.

H. C. S.

NOGUCHI'S LUETIN TEST FOR SYPHILIS. L. A. Pusey and A. W. Stillians. (*Journ. of Cut. Dis.*. August, 1914, p. 560.)

The writers have employed the luetin test. carried out strictly according to Noguchi's method, in a large number of cases during the last two years. Their tables record the results of the test in 334 cases: 255 cases of syphilis and 79 non-syphilitic cases. In 7 cases of primary syphilis with chancre still present the test was negative in all, though 2 gave positive Wassermanns. In 104 cases of secondary syphilis only 21 gave positive results, while the Wassermann was positive in 91 of these. and not made in 7. showing that the test is of little value in early syphilis.

In 122 cases of late syphilis, in the gummatous stage there were 68 positive reactions, 60 of which occurred in active cases and 6 in latent cases. In 18 cases giving positive luetin reactions negative Wassermanns were obtained.

In 5 cases of congenital syphilis, 1 case gave a positive luetin reaction and a negative Wassermann.

In 22 cases of tabes and general paralysis. 11 gave a positive result, and in 8 of these 11 the Wassermann reaction was frankly negative.

In 79 non-syphilitic cases neither reactions were positive. These cases included tuberculosis. psoriasis, gonorrhœa, pityriasis rosea. urticaria, etc.

The writers consider that the reaction is a valuable diagnostic sign of late syphilis, and found that it was positive in 39 per cent. of 144 cases. In early syphilis, in the active primary and secondary periods, the reaction rarely occurs.

J. M. H. M.

NOTICE.

NATIONAL COUNCIL FOR COMBATING VENEREAL DISEASES.

The Inaugural Meeting of the National Council for Combating Venereal Diseases was held on Wednesday, November 11th, 1914, at the house of the Royal Society of Medicine, Sir Thomas Barlow presiding. The meeting was a very representative one, and the large Council, which includes clerical and lay leaders in social and philanthropic work, as well as many leading physicians and surgeons, will, we believe, command general respect. The fact that forty ladies have joined the Council is a very important feature, and their co-operation must have a most valuable influence.

The aims and objects of the Council are:

(1) To provide accurate and enlightened information as to the prevalence of these diseases, and as to the necessity of early treatment.

(2) To promote the provision of greater facilities for their treatment.

(3) To increase the opportunities of medical students and practitioners for the study of these diseases.

(4) To encourage and assist the dissemination of a sound knowledge of the physiological laws of life in order to raise the standard both of health and conduct.

(5) To co-operate with existing associations, to seek their approval and support, and to give advice when desired.

(6) To arrange, in connection with such organisations, for courses of lectures, and to supervise the preparation of suitable literature.

(7) To promote such legislative, social, and administrative reforms as are relevant to the foregoing aims and objects.

In view of the present emergency a provisional executive committee has been formed, and already arrangements are being made for lecturers to visit the numerous camps in the country. The military authorities are cordially assisting in this important work.

The Hon. Secretaries of the Council are :—Dr. Douglas White and Mrs. Gotto, Kingsway House, W.C.

REVIEW.

The Medical Annual, 1914.*

The high standard of the articles in this indispensable annual is well maintained. Dr. Graham Little continues to review the progress of dermatology, and his summaries of recent work will be found of great value. As before, there are copious references to the original papers. Dr. Langmead contributes a useful note on congenital syphilis and gives a series of illustrations, including a coloured plate, of eczema oris syphiliticum, described by Drs. Leonard Findlay and Ferguson Watson, which these observers hold to be a hitherto undescribed affection. In their twenty-one cases there were other specific stigmata in five instances, and nineteen of them gave a positive Wassermann reaction.

Dr. C. F. Marshall contributes the article on "Syphilis and its Treatment," which is well illustrated. The coloured plates and figures illustrating Noguchi's luetin reaction and its histology deserve special notice.

NOTE.

Dr. Aldo Castellani, of Colombo, Ceylon, whose valuable contributions on Tropical Dermatoses have frequently appeared in this Journal, has been appointed Regius Professor of Tropical Medicine—a newly-created chair—at the University of Naples, and also Director of the Royal Clinique for Tropical Diseases in the same city.

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* *The Medical Annual*, 1914. Bristol : John Wright & Sons, Ltd.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

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Eczema, Infantile. HALDIN DAVIS. (*Brit. Med. Journ.*, October 10th, 1914, p. 626.)

Eczema in Infancy and Childhood, The Causes and Treatment of. R. G. FREEMAN. (*Arch. of Ped.*, October, 1914, vol. xxxi, No. 10, p. 735.)

Erythema Nodosum and Tuberculosis, The Association of. O. H. FOERSTER. (*Journ. Amer. Med. Assoc.*, October 10th, 1914, vol. lxiii, No. 15, p. 1266.)

Generalised Neurofibromatosis (v. Recklinghausen's Disease), A Case showing a Superficial Resemblance to Hodgkin's Disease. C. A. ELLIOT and A. F. BEIFELD. (*Journ. Amer. Med. Assoc.*, October 17th, 1914, vol. lxiii, No. 16, p. 1358.)

Herpes and Varicella. J. HEPWORTH. (*Brit. Med. Journ.*, October 10th, 1914, p. 629.)

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Insects and War (Mites : the Harvest Bug). A. E. SHIPLEY. (*Brit. Med. Journ.*, October 31st, 1914, p. 750.)

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Insects and War (Mites : Demodex, Sarcoptes). A. E. SHIPLEY. (*Brit. Med. Journ.*, November 7th, 1914, p. 784.)

Keratodermia Blennorrhagica. A. WINKELREID WILLIAMS. (*Brit. Med. Journ.*, October 10th, 1914, p. 627.)

Leukoplakia. A. E. BARKER. (*Practitioner*, August, 1914, vol. xciii, No. 2, p. 176.)

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Lymphatic Origin, Diseases and New Growths of. G. ARNDT (Berlin). (*Journ. Amer. Med. Assoc.*, October 10th, 1914, vol. lxiii, No. 15, p. 1268.)

Multiple Neurofibroma of the Skin, Contribution to Knowledge of. P. H. SCHOONHEID. (*Derm. Zeitschr.*, July 19th, 1914, vol. xxi, Heft 7, p. 610.)

Psoriasis. GEORGE PERNET. (*Practitioner*, September, 1914, vol. xciii, No. 3, p. 339.)

Pityriasis Rosea of Gibert. E. GRAHAM LITTLE. (*Lancet*, November 21st, 1914, vol. clxxxvii, p. 1196.)

Purpura Hæmorrhagica treated by Horse Serum. J. M. BODENHEIMER. (*New York Med. Journ.*, October 17th, 1914, p. 774.)

Pruritus Ani. L. E. C. NORBURY. (*Practitioner*, November, 1914, vol. xciii, No. 5, p. 630.)

Sarcoid of Boeck. S. E. Sweitzer. (*Journ. Amer. Med. Assoc.*, September 19th, 1914, vol. lxiii, No. 12, p. 991.)

Sclerodermia, Diffuse, An Account of Two Cases, with Some Comment. Alfred Howell. (*Practitioner*, November, 1914, vol. xciii, No. 5, p. 604.)

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White Spot Disease. G. M. Mackee. (*Journ. of Cut. Dis.*, September, 1914, vol. xxxii, No. 9, p. 629.)

White Spot Disease. Geo. M. Mackee. (*Journ. Amer. Med. Assoc.*, August 29th, 1914, vol. xiii, No. 9, p. 734.)

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FUNGUS INFECTIONS.

Dermatophytes, On the Cultural Evolution of the. L. Cazalbon. (*Annales de l'Institut Pasteur*, January, 1914, vol. xxviii, No. 1, p. 69.)

Favus and Ringworm of the Nails. M. H. Foster. (*Journ. Amer. Med. Assoc.*, May 22nd, 1914, vol. lxiii, No. 8, p. 640.)

Fungus Infections of the Hands and Feet. Marie Kaufmann-Wolf. (*Derm. Zeitschr.*, May, 1914, vol. xxi, H. 5, p. 385.)

Lichenoid Trichophytosis, On Secondary. K. Herscheimer and H. Kösler. (*Derm. Zeitschr.*, July, 1914, vol. xxi, H. 7, p. 569.)

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